Is Disability Disabling in All Workplaces? Workplace Disparities and Corporate Culture

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Using nearly 30,000 employee surveys from fourteen companies, we find disability is linked to lower average pay, job security, training, and participation in decisions, and to more negative attitudes toward the job and company. Disability gaps in attitudes vary substantially, however, across companies and worksites, with no attitude gaps in worksites rated highly by all employees for fairness and responsiveness. The results indicate that corporate cultures that are responsive to the needs of all employees are especially beneficial for employees with disabilities.

Introduction

DO EMPLOYEES WITH DISABILITIES FACE DISPARITIES in important workplace outcomes such as pay, training, job security, promotions, and participation in decisions? Do they believe their companies treat them fairly and with respect? Do

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corporations with more supportive cultures and practices for all employees provide particular benefits for employees with disabilities?

Understanding and assessing the experiences of U.S. employees with disabilities is important for the country's long-term economic growth and stability, particularly in view of expected labor shortages over the next several decades. The Americans with Disabilities Act (ADA) of 1990 along with other law and policy initiatives have attempted to improve employment opportunities for qualified people with disabilities (Blanck 2005). It is clear, however, that employment levels of people with disabilities remain far below those of non-disabled people (Kruse and Schur 2003; RRTC 2007; Stapleton and Burkhauser 2003; Yelin and Trupin 2003). These low employment rates contribute to high rates of poverty (Ball et al. 2006; Hartnette and Blanck 2003; Schur 2002) and to the expansion of governmental benefit programs for people with disabilities. The majority of non-employed people with disabilities report they would prefer to be working (Harris Interactive, Inc. 2000).

In contrast to the numerous studies on employment levels, little research has examined the experiences of people with disabilities who are currently working (e.g., Bruyère, Erickson, and Ferrentino 2003; Colella 1996; Schartz et al. 2006; Schartz, Hendricks, and Blanck 2006; Stone and Colella 1996; Yelin and Trupin 2003). This article provides empirical evidence on workplace outcomes for employees with disabilities, and how these outcomes vary across companies and workplaces in ways that may reflect differences in corporate culture and practices. Our dataset of close to 30,000 employee surveys from fourteen companies permits a detailed examination of the relationship of disability to work organization, company policies, perceived treatment by the company, and employee responses such as job satisfaction, likely turnover, and willingness to work hard for the employer. We make comparisons across companies and worksites to identify and explain variation in outcomes for employees with disabilities.

What Do We Know About Employed People with Disabilities?

While systematic knowledge is limited, we know that employees with disabilities are paid less than non-disabled workers, both on an hourly and weekly basis (Baldwin and Johnson 2006; Hale, Hayghe, and McNeil 1998). While lower pay may be in part due to impairments and health problems that limit productivity, it also appears to be due to employer discrimination and other attitudinal and physical barriers, or lack of accommodations and training. Studies of disability pay gaps find that lower pay is linked to the greater stigma accompanying certain disabilities, indicating that discrimination appears to play a role (Baldwin and Johnson 2006; Blanck 2001).

Employees with disabilities are less likely than non-disabled employees to receive benefits such as employer provided health insurance and pension plans (Kruse 1998; Schur 2002). They are more likely to be in production and service jobs and less likely to be in professional, technical, or managerial jobs (Hale, Hayghe, and McNeil 1998: 8). They are also more likely to be in part-time, temporary, and other non-standard jobs that often provide low pay and few if any benefits (Di Natale 2001; Schur 2002; Yelin and Trupin 2003). Overall, almost half (44 percent) of workers with disabilities are in some type of non-standard work arrangement, compared with one-quarter (22 percent) of workers without disabilities (Schur 2003). They are not, however, more likely to work in jobs with flexible schedules (Presser and Altman 2002; Yelin and Trupin 2003).

Apart from information on employment and pay levels, there is relatively little information on other employment outcomes. There is some evidence that workers with disabilities have lower job security and higher rates of job loss (Baldwin and Schumacher 2002; Yelin and Trupin 2003), and generally lower levels of job satisfaction (McAfee and McNaughton 1997a,b; Uppal 2005). Analysis of a California survey shows that they do not appear to differ from non-disabled workers in psychological and cognitive job demands (e.g., job autonomy, interaction with co-workers), although they are less likely to be in jobs classified as "economically and psychologically rewarding" (Yelin and Trupin 2003: 28).

There are no systematic studies of disparities in important job attributes, such as opportunities for training, promotion, and participation in decisions, or regarding attitudes of employees with disabilities toward their companies. Moreover, the existing evidence on disability gaps in pay and other outcomes is based on broad samples that predominantly compare workers across firms, and not on intensive comparisons within firms that hold constant a number of firm-specific characteristics affecting outcomes for all workers. Based on the existing literature showing lower levels of pay, benefits, and job security for people with disabilities, and the role that stigma and discrimination appear to play in these gaps (Baldwin and Johnson 2006), our first hypothesis is

> *Hypothesis 1:* Employees with disabilities have lower levels of pay, benefits, job security, and opportunities for promotions, skill building, and decision making than do non-disabled employees.

We further hypothesize that these disparities will affect employee views of the company:

> *Hypothesis 2:* Employees with disabilities have more negative views of how employees are treated by the company than do non-disabled employees.

Hypothesis 3: The negative effect of disability on views of company treatment is partially mediated by access to pay, benefits, job security, and opportunities for promotions, skill building, and decision making.

Disparities between employees with and without disabilities can have important consequences: the growing literature on high-performance work systems indicates that workplace policies affect corporate performance through employee skills, attitudes, and behaviors (Becker and Huselid 2006; Combs et al. 2006; Macky and Boxall 2007). Outcomes such as turnover and organizational citizenship behaviors are related to how employees feel they are treated by the company (Griffeth, Hom, and Gaertner 2000; Meyer et al. 2002). Based on this literature, our next two hypotheses are

Hypothesis 4: Employees with disabilities have higher turnover intentions and lower job satisfaction, company loyalty, and willingness to work hard for the company than do non-disabled employees.

Hypothesis 5: The negative effects of disability on turnover intentions, job satisfaction, company loyalty, and willingness to work hard are partially mediated by access to pay, benefits, job security, and opportunities for promotions, skill building, and decision-making input.

Recent scholarship suggests that the workplace experiences of employees with disabilities may be shaped by corporate cultures—i.e., the values, attitudes, and norms embedded in a company (Blanck 2005; Colella 1996; Schur, Kruse, and Blanck 2005; Sandler and Blanck 2004; Spataro 2005; Stone and Colella 1996). Many corporate cultures appear to be based on the assumption that employees are able-bodied, which poses significant obstacles to hiring and retention of people with disabilities (Ball et al. 2005, 2006). One important aspect of corporate culture is the "justice climate," reflecting collective beliefs about distributive, procedural, and interpersonal justice in the organization (Liao 2007; Rupp, Bashshur, and Liao 2007). All three beliefs may be particularly important for people with disabilities: distributive justice concerns outcomes such as pay and the provision of workplace accommodations, procedural justice concerns policies and procedures such as how requests for accommodations are handled, and interpersonal justice concerns the extent to which organizational members are treated with respect, dignity, and sensitivity. Research has shown that all three types are highly related and contribute to an overall sense of fairness and justice at work. The justice climate is shaped by organizational structures, and has been linked to job attitudes, performance, and citizenship behaviors (Liao and Rupp 2005; Rupp, Bashshur, and Liao 2007).

There is no direct evidence on how workers with disabilities experience the justice climate or other aspects of corporate culture, but results from the few extant studies and related psychological evidence suggest that supervisor and co-worker attitudes have a profound impact on the employment experiences of people with disabilities (Boyle 1997; Colella 1996, 2001; Colella, DeNisi, and Varma 1998; Harlan and Robert 1998; Marti and Blanck 2000). These attitudes can reflect negative or positive stereotypes about the personalities and abilities of employees with disabilities, as well as discomfort if the disability involves stigmatized conditions such as mental or cognitive impairments (Blanck 2005; Colella 1996). Exposure to people with disabilities may help overcome these negative stereotypes (Makas 1988).

The importance of corporate culture is demonstrated by O'Reilly, Chatman, and Caldwell (1991), who find the fit between individuals and organizational values is a strong predictor of organizational commitment, job satisfaction, and turnover. Of even more direct relevance for this study, McKay et al. (2007), McKay, Avery, and Morris (2008) find that racial differences in employee retention and sales performance are related to workplace environment. They find the largest racial disparities in retention and sales performance in stores with the most negative diversity climates, and the smallest gaps in stores with pro-diversity climates, indicating that workplace environments may be particularly important for members of disadvantaged groups.

Based on this literature our next hypothesis is

> *Hypothesis 6:* Perceived justice climate moderates the relationship between disability and employee responses to the job and company (turnover intention, job satisfaction, company loyalty, and willingness to work hard), with especially negative responses by employees with disabilities when the workplace climate is perceived as less just by workers in general.

Stone and Colella (1996) theorize that employees with disabilities fare particularly badly in bureaucratic organizations that emphasize competitive achievement and are based on a rigid equity value system. Such organizations often weigh the fairness of treatment for all employees against the personalized consideration of employees with disabilities (see case examples in Blanck 2005). In such companies, workplace accommodations are likely to be viewed as unfair—an unjustified and expensive "perk"—especially when seen as making the accommodated person's work easier, making the co-worker's job harder or less desirable, and causing coworkers to lose competitive rewards. This often is the case even though the practical benefits of workplace accommodations are generally clear, generalizable, and their costs minor and benefits high (Schartz, Hendricks, and Blanck 2006; Schartz et al. 2006).

In contrast, people with disabilities are likely to fare better in flexible organizations that value diversity, cooperation, and the personalized consideration of employee needs (Stone and Colella 1996). Company cultures based on a "customized needs" model, as opposed to a strict "equity" model, are more likely to approve and support accommodations generally, especially in supportive work environments that stress individual autonomy and let employees help decide how best to perform their own work (Blanck 1994, 1996; Colella 2001). This leads to our final hypothesis:

> *Hypothesis 7:* Perceived company responsiveness to employees moderates the relationship between disability and employee responses to the job and company (turnover intention, job satisfaction, company loyalty, and willingness to work hard), with especially negative responses by employees with disabilities when the workplace climate is perceived by workers in general as less responsive to employee concerns.

The importance of attitudes toward employees with disabilities is supported by employers' own views. One-fifth (20 percent) of employers report the greatest barrier to people with disabilities finding employment is discrimination, prejudice, or employer reluctance to hire them (Dixon, Kruse, and Van Horn 2003). A similar percentage (22 percent) of employers report attitudes and stereotypes are a barrier to employment of people with disabilities in their own firms (Bruyère 2000). In addition, one-third (32 percent) of employers say it is difficult or very difficult to change supervisor and co-worker attitudes. It is likely that these figures understate the problem due to "social desirability" bias in responding to surveys, and to the frequent discrepancy found between the attitudes employers express towards people with disabilities on surveys and their actual hiring practices (Wilgosh and Skaret 1987). Together, the survey evidence combined with the evidence from laboratory studies indicate negative attitudes toward people with disabilities may be an important barrier to their job and career experiences.

The hypotheses described above are depicted in two figures below. Figure 1 illustrates the effect of disability on pay and work organization (Hypothesis 1) and perceived company treatment of employees (Hypothesis 2), the mediating role of pay and work organization in affecting perceived company treatment of employees (Hypothesis 3), the effect of disability on employee responses (Hypothesis 4), and the mediating role of pay and work organization in affecting employee responses (Hypothesis 5). Figure 2 depicts the effect of disability on pay and work organization, and on employee responses, with the latter relationship moderated by worksite-level measures of the justice climate (Hypothesis 6) and perceived responsiveness to employee concerns (Hypothesis 7).

FIGURE 1

DISABILITY, WORKPLACE DISPARITIES AND EMPLOYEE RESPONSES

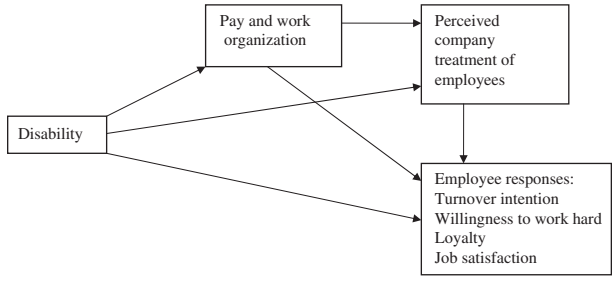
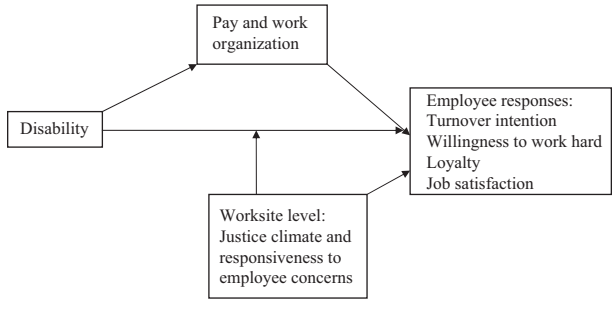


FIGURE 2

DISABILITY, WORKSITE CULTURE, AND EMPLOYEE RESPONSES



In summary, there is limited information on workplace disparities facing employees with disabilities, or on the role workplace culture plays in generating or sustaining those disparities. This study addresses these issues by providing new evidence on the disparities faced by employees with disabilities, and by examining how those disparities differ among companies and workplaces in ways that point to an important moderating role for corporate culture.

Data and Methods

The present data are derived from employee surveys conducted through the National Bureau of Economic Research (NBER) Shared Capitalism Research Project. Fourteen companies with different combinations of company performance-based pay (employee ownership, profit sharing, and/or broad-based stock options) agreed to have surveys administered to all or a random sample of employees. The surveys were conducted over the years 2001–2006. The

sample is not representative of U.S. employers, both because of the selection criteria and the refusal of some firms to participate. These are, however, mainstream companies that have good variation in size (i.e., three have fewer than 500 employees, three have 500–1000 employees, five have 1000–5000 employees, and three have more than 5000 employees) and industry (i.e., eight are in manufacturing, three are in service, two are Internet-based companies, and one is in financial services).

The main purpose of the surveys was to obtain information on compensation and human resource policies and employee attitudes and behaviors. Each company survey included core questions common across all companies as well as questions of special interest and relevance to that particular company. Appendix A shows the survey questions used in this study and their descriptive statistics. The core questions included one disability question: "Do you have a health problem or impairment lasting 6 months or more that limits the kind or amount of work, housework, or other major activities you can do?" This wording closely tracks the work disability question on the Current Population Survey, Survey of Income and Program Participation, and National Health Interview Survey, except that "work" was expanded to "work, housework, or other major activities" to capture a fuller range of major life activities. This expansion also more closely matches the ADA definition of disability (Blanck et al. 2005).

Among the 29,897 U.S. respondents to the disability question, 1645 (5.5 percent) answered "yes." This prevalence figure is comparable though slightly lower than the 6.5 percent of private-sector employees who are estimated to have disabilities as identified in the 2005 American Community Survey (ACS), which bases its disability measure on a more extensive set of six questions.[1] Therefore, these companies appear to be fairly representative in disability prevalence. To further verify the representativeness of our sample, we compared the ACS and NBER datasets by disability status on several job and demographic characteristics (available on request). We find several differences between the two datasets in general (e.g., in percent full time, male, married, and with higher education), but these differences are similar for employees with and without disabilities. The similar patterns provide a reasonable degree of confidence there is nothing atypical in how the companies in our sample hire and retain employees with disabilities (any differences between the NBER companies and other companies in hiring and retention are general, affecting employees both with and without disabilities). The willingness of these compa-

[1] This is based on estimates using 2005 ACS microdata. The ACS uses six questions to measure disability, measuring (1) any hearing or visual impairment, (2) substantial mobility impairment, (3) substantial mental or cognitive impairment, (4) difficulty with household activities, (5) difficulty going outside the home alone, or (6) difficulty working at a job or business.

nies to allow outside researchers to conduct employee surveys may signal that they put more effort than other companies into treating employees well, and are less worried that disparities among employee groups will be found. Therefore, to the extent these companies may be unrepresentative, the disparities we find are likely to be understated relative to the population of all firms.

The variables analyzed are classified into three groups: (1) pay and work organization, (2) perceived company treatment of employees, and (3) employee responses. Following a simple comparison of job characteristics in Table 1, we estimate disability gaps in pay and work organization variables in Table 2. The relation of disability to perceptions of company treatment and employee responses is assessed in Table 3, both before and after controlling for the pay and work organization measures. The estimating equations and techniques are described in Appendix B.

We analyze how these disparities differ across workplaces in two ways: first comparing outcomes between companies A and B in Tables 4 and 5, and then comparing outcomes across worksites in Table 6. Company A was selected for several reasons: its results appear to be representative of the sample as a whole; its survey has additional measures of the company's perceived responsiveness to employees; and we can make comparisons across over 100 worksites in company A. We selected company B because it is measurably not like the other companies, in that its disability gaps are smaller or non-existent on most of the key measures. Company A is a large manufacturing firm with over 30,000 employees, while company B is a financial services company with over 9000 employees. Comparing findings within and between these two companies, therefore, yields insight into how corporate policies and culture help create more favorable outcomes for employees with disabilities in some companies than in others.

Making comparisons among worksites is instructive because employee experiences are influenced strongly by their local environment and immediate supervisors. Even though some policies and practices may apply across an entire company, they may be implemented and interpreted differently by local managers, supervisors, and co-workers. We use site-level averages of perceived company fairness and responsiveness that reflect basic values and norms in how employees are treated. The worksite-level measurement of perceptions of fairness reflects the justice climate (Rupp, Bashshur, and Liao 2007). Our strategy is to use site-level averages of these two measures as a general proxy of "good" and "bad" worksites as seen by all employees (both with and without disabilities).[2] The estimating equation is described in Appendix B. While a full analysis of corporate culture would include other measures not available here, our review of the literature suggests these are useful indicators that shed light

[2] Results are similar when these measures are averaged only across employees without disabilities.

TABLE 1

Disability and Basic Job Characteristics

	Full sample		Company A		Company B	
	No disability	Disability	No disability	Disability	No disability	Disability
Occupation						
Production	42.2%**	63.1%	57.3%**	77.0%	14.1%*	23.2%
Administrative support	5.8%	6.5%	4.6%	3.5%	21.3%**	36.6%
Professional/technical	32.4%**	20.2%	21.2%**	11.5%	37.9%	28.0%
Sales/customer support	7.0%**	4.0%	6.3%**	3.1%	9.4%	8.5%
Management						
Low	11.7%**	7.1%	4.4%	3.4%	8.2%	2.4%
Middle	7.5%**	5.0%	5.7%**	3.8%	6.4%	1.2%
Upper	2.0%	1.4%	1.8%	1.2%	2.8%	0.0%
Supervisor	26.0%**	18.4%	24.4%**	16.5%	26.3%**	8.5%
Paid on hourly basis	49.8%**	72.9%	62.7%**	82.4%	40.1%**	71.6%
Tenure						
Avg. years (*SD*)	9.8** (9.0)	12.2 (9.8)	12.1** (9.7)	14.1 (10.1)	6.3 (5.7)	6.1 (5.3)
0–2 years	21.0%**	13.5%	16.3%**	10.5%	25.1%	23.5%
2–5 years	17.9%*	15.6%	12.6%*	10.1%	32.9%	38.3%
>5 years	61.1%**	70.9%	71.1%**	79.4%	42.0%	38.3%
Work hours per week						
Avg. hours (*SD*)	45.6** (9.4)	43.0 (9.8)	44.1** (8.3)	42.3 (9.3)	43.5** (7.3)	40.7 (6.2)
<35 h	2.7%**	4.4%	2.8%**	4.5%	3.5%	4.9%
36–50 h	65.0%**	76.0%	73.2%**	79.6%	76.0%**	87.8%
>51 h	32.4%**	19.6%	24.0%**	15.9%	20.5%**	7.3%
Union coverage	4.7%**	10.4%	5.6%**	11.7%	0.0%	0.0%
Sample size	28,252	1645	16,620	1093	1045	82

Note: Significant difference by disability status at *$p < 0.05$; **$p < 0.01$.

on the potential role of corporate culture in the experiences of employees with disabilities and suggest avenues for future research. If workplaces that are perceived as more just and responsive to employees in general are particularly good for those with disabilities, the disability gaps should be smaller or nonexistent in more just and responsive workplaces.

The data have some limitations with regard to studying disability. In particular, as only one question is used to identify employees with disabilities, it is not possible to make comparisons by type of impairment or by severity of activity limitations. In addition, because the surveys were conducted for another purpose, no specific questions were asked about disability issues, such as whether the respondent had received workplace accommodations. While we recognize these limitations, this dataset nonetheless provides new and valuable information. This is the first large-scale dataset that permits a detailed examination of what happens at work for employees with disabilities, allowing comparisons within and across companies and worksites.

TABLE 2

DISABILITY, PAY, AND WORK ORGANIZATION—ALL COMPANIES

	Row	Disability coeff. (1)	(*t*-statistics) (2)	*n* (3)	R^2 (4)	Dep. var. mean (5)	(*SD*) (6)
Pay and benefits							
Base pay + overtime (natural log) (OLS)	1	−0.081**	(8.57)	24,391	0.673	10.86	(0.57)
Total compensation relative to market (1–5 scale, OLS)	2	−0.088**	(3.26)	25,310	0.098	2.93	(1.01)
Eligible for performance-based pay (0–1, probit)	3	−0.011	(1.44)	28,849	0.274	0.85	(0.36)
Eligible for bonuses based on group or dept. performance (0–1, probit)	4	0.021	(1.87)	28,423	0.168	0.21	(0.41)
Grade of company on wages (0–4, OLS)	5	−0.146**	(5.74)	29,126	0.069	2.67	(1.01)
Grade of company on benefits (0–4, OLS)	6	−0.172**	(6.81)	29,083	0.132	2.76	(1.03)
Work organization							
Job security (1–4, ordered probit)	7	−0.187**	(6.35)	29,044	0.029	3.14	(0.73)
Closely supervised (0–10, OLS)	8	0.279**	(4.63)	29,194	0.090	3.03	(2.42)
Participation in job decisions (1–4, ordered probit)	9	−0.193**	(6.56)	29,136	0.084	1.70	(0.88)
Participation in dept. decisions (1–4, ordered probit)	10	−0.153**	(5.34)	29,083	0.074	2.41	(1.04)
Participation in company decisions (1–4, ordered probit)	11	−0.053	(1.70)	29,067	0.057	3.30	(0.84)
Satisfaction with participation in decisions (1–4, ordered probit)	12	−0.286**	(10.03)	29,048	0.042	2.36	(0.85)
Formal training in past 12 months (0–1, probit)	13	−0.032*	(2.39)	28,980	0.101	0.57	(0.50)
If trained, hours of training in past 12 months (OLS)	14	−0.739	(0.40)	15,917	0.051	31.21	(47.82)
Informal training from co-workers (1–4, ordered probit)	15	−0.138**	(4.87)	29,102	0.018	2.92	(0.84)
No. of promotions (0–3, tobit)	16	−0.111	(1.45)	29,065	0.064	1.34	(1.21)
Work as part of team (0–1, probit)	17	−0.054**	(3.93)	22,088	0.065	0.56	(0.50)

NOTES: Significant coefficient at $*p < 0.05$; $**p < 0.01$.
Each row contains results of separate regression. Dependent variables are listed at left.
See Appendix A for variable definitions.
All regressions include basic job and demographic controls: age, sex, race (5 dummies), education (4 dummies), years of tenure, occupation (4 dummies), hours worked per week, union status, and company fixed effects.

Results

Basic Job Characteristics. Table 1 shows employees with disabilities are more likely than non-disabled employees to be in production jobs (63.1 percent compared with 42.2 percent), and less likely to be in professional, sales, and management and supervisory jobs. This helps explain why they

TABLE 3

DISABILITY, COMPANY TREATMENT, AND EMPLOYEE RESPONSES—ALL COMPANIES

	Row	Disability coeff. (1)	(*t*-statistics) (2)	Job and demographic controls (3)	Pay and work org. controls (4)	*n* (5)	R^2 (6)	Dep. var. mean (7)	(*SD*) (8)
Company treatment of employees									
Company is fair to	1	−0.380**	(9.02)	Yes		27,095	0.140	4.99	(1.64)
employees (1–7, OLS)	2	−0.253**	(6.46)	Yes	Yes	27,095	0.263		
Grade of company on	3	−0.238**	(10.06)	Yes		27,159	0.173	2.62	(0.95)
treatment of employees (0–4, OLS)	4	−0.161**	(7.59)	Yes	Yes	27,159	0.339		
Employee responses									
Likelihood of turnover	5	0.224**	(6.88)	Yes		27,115	0.025	1.55	(0.82)
(1–4, ordered probit)	6	0.139**	(4.13)	Yes	Yes	27,115	0.109		
Willing to work hard for	7	−0.147**	(6.33)	Yes		27,145	0.077	4.08	(0.87)
company (1–5, OLS)	8	−0.099**	(4.42)	Yes	Yes	27,145	0.147		
Loyalty to company	9	−0.243**	(7.79)	Yes		26,730	0.052	3.38	(0.79)
(1–4, ordered probit)	10	−0.166**	(5.22)	Yes	Yes	26,730	0.133		
Job satisfaction	11	−0.321**	(9.38)	Yes		27,175	0.041	5.07	(1.27)
(1–7, OLS)	12	−0.199**	(6.51)	Yes	Yes	27,175	0.245		

NOTES: Significant coefficient at *$p < 0.05$; **$p < 0.01$.
See Appendix A for variable definitions.
Each row contains results of separate regression.
Dependent variables are listed at left.
Job and demographic controls include age, sex, race (5 dummies), education (4 dummies), years of tenure, occupation (4 dummies), hours worked per week, and union status. All regressions also include company fixed effects.
Pay and work organization controls include the variables from Table 2, except grade of company on wages and benefits, and satisfaction with participation.

are more likely to be paid on an hourly basis (72.9 percent compared with 49.8 percent). Workers with disabilities also have longer tenure on average than non-disabled workers (in part, because they tend to be somewhat older) and they work fewer hours per week on average (43.0 h compared with 45.6 h). Consistent with their greater prevalence in production jobs, they are more likely to be union members. These differences by disability status generally hold true for both company A and company B. It is noteworthy that over three-fourths (77.0 percent) of employees with disabilities in company A are in production jobs, compared with less than one-fourth (23.2 percent) in company B. While this reflects the fact that company A is in manufacturing, and company B is in financial services, it also may have implications for the treatment of employees with disabilities. At company B, employees with disabilities are more broadly spread throughout the organization, with over half in professional/technical (28.0 percent) and administrative support jobs (36.6 percent). As will be discussed, the greater

TABLE 4

DISABILITY, PAY, AND WORK ORGANIZATION—COMPANIES A AND B

		Company A		Company B	
	Row	Disability coeff. (1)	(*t*-statistics) (2)	Disability coeff. (3)	(*t*-statistics) (4)
Pay and benefits					
Base pay + overtime (natural log) (OLS)	1	−0.076**	(6.49)	−0.069	(1.51)
Total compensation relative to market (1–5 scale, OLS)	2	−0.042	(1.30)	0.094	(0.70)
Eligible for performance-based pay (0–1, probit)	3	−0.008	(0.71)	−0.040	(0.64)
Eligible for bonuses based on group or dept. performance (0–1, probit)	4	0.023	(2.25)	−0.028	(0.57)
Grade of company on wages (0–4, OLS)	5	−0.111**	(3.58)	−0.134	(1.13)
Grade of company on benefits (0–4, OLS)	6	−0.130**	(4.11)	−0.049	(0.50)
Work organization					
Job security (1–4, ordered probit)	7	−0.146**	(4.03)	−0.027	(0.20)
Closely supervised (0–10, OLS)	8	0.260**	(3.35)	1.188**	(4.21)
Participation in job decisions (1–4, ordered probit)	9	−0.160**	(4.45)	−0.204	(1.55)
Participation in dept. decisions (1–4, ordered probit)	10	−0.181**	(5.08)	−0.022	(0.17)
Participation in co. decisions (1–4, ordered probit)	11	−0.016	(0.42)	0.120	(0.82)
Satisfaction with participation in decisions (1–4, ordered probit)	12	−0.280**	(7.92)	−0.217	(1.71)
Formal training in past 12 months (0–1, probit)	13	−0.013	(0.78)	−0.123*	(2.09)
Hours of training in past 12 months (tobit)	14	0.310	(0.12)	2.031	(0.17)
Informal training from co-workers (1–4, ordered probit)	15	−0.102**	(2.91)	−0.224	(1.75)
Work as part of team (0–1, probit)	16	−0.062**	(3.91)	0.065	(1.16)
No. of promotions (0–3, tobit)	17	0.024	(0.22)	−0.620*	(2.38)

NOTES: Significant coefficient at $*p < 0.05$; $**p < 0.01$.
See Appendix A for variable definitions.
Each row contains disability coefficients (*t*-statistics) from two regressions, done separately for companies A and B.
All regressions contain basic job and demographic controls: age, sex, race (5 dummies), education (4 dummies), years of tenure, occupation (4 dummies), hours worked per week, and union status.

exposure to people with disabilities throughout company B may account for the better treatment they perceive.

Pay and Benefits. As shown in Table 2, the employees with disabilities in these companies earn about 8 percent less than their non-disabled peers after controlling for other job and demographic characteristics (row 1), consistent with Hypothesis 1.[3] Asked to rate their total compensation relative to the market, workers with disabilities report that they receive significantly lower total compensation (row 2). They also give significantly lower grades to their companies on both wages and benefits (rows 5 and 6). They are, however, as

[3] As the control variables include hours worked per week, this can be interpreted as 8 percent lower hourly pay.

TABLE 5

DISABILITY, COMPANY TREATMENT, AND EMPLOYEE RESPONSES—COMPANIES A AND B

	Row	Pay and work org. controls	Company A Disability coeff.	Company A (*t*-statistics)	Company B Disability coeff.	Company B (*t*-statistics)
Company treatment of employees						
Company is fair to employees (1–7, OLS)	1		−0.348**	(6.48)	−0.134	(0.75)
	2	Yes	−0.250**	(5.00)	0.038	(0.23)
Grade of company on treatment of	3		−0.210**	(7.36)	−0.059	(0.60)
employees (0–4, OLS)	4	Yes	−0.154**	(6.11)	0.022	(0.24)
Supervisor treats me with respect	5		−0.226**	(6.35)		
(1–5, ordered probit)	6	Yes	−0.159**	(4.73)		
Company is responsive to employee	7		−0.222**	(8.51)		
concerns (1–5, OLS)	8	Yes	−0.157**	(7.43)		
Supervisor gives constructive	9				−0.016	(0.12)
feedback (1–5, OLS)	10	Yes			0.069	(0.52)
Not subject to inappropriate comments and	11				−0.319*	(2.49)
behavior (1–5, OLS)	12	Yes			−0.167	(1.36)
Employee responses						
Likelihood of turnover (1–4, ordered probit)	13		0.246**	(6.12)	0.204	(1.40)
	14	Yes	0.189**	(4.56)	0.092	(0.59)
Willing to work hard for company	15		−0.142**	(4.89)	0.029	(0.29)
(1–5, OLS)	16	Yes	−0.104**	(3.69)	0.105	(1.08)
Loyalty to company (1–4, ordered probit)	17		−0.227**	(5.94)	−0.209	(1.48)
	18	Yes	−0.174**	(4.46)	−0.134	(0.90)
Job satisfaction (1–7, OLS)	19		−0.338**	(7.72)	−0.322*	(2.24)
	20	Yes	−0.244**	(6.16)	−0.132	(1.05)

NOTES: Significant coefficient at $*p < 0.05$; $**p < 0.01$.

See Appendix A for variable definitions.

Each row contains disability coefficients (*t*-statistics) from two regressions, done separately for companies A and B.

All regressions contain basic job and demographic controls: age, sex, race (5 dummies), education (4 dummies), years of tenure, occupation (4 dummies), hours worked per week, and union status.

Pay and work organization controls include the variables from Table 2, except grade of company on wages and benefits and satisfaction with participation.

likely as non-disabled workers to be eligible for performance-based pay and bonuses based on group or department performance (rows 3 and 4). This latter finding goes against the idea that non-disabled workers will resist being in group incentive plans with workers with disabilities (Colella, DeNisi, and Varma 1998); although (1) the non-disabled workers may be unaware of their co-worker's disability, (2) this measure captures larger groups than laboratory studies based on small groups, and (3) while there might be resistance, non-disabled workers may not have a choice about sharing group incentives with co-workers who have disabilities because the program eligibility is broad-based or legally required and implemented by upper management.

Work Organization. The lower status of workers with disabilities is reflected in a number of work organization variables. Workers with disabilities report

TABLE 6

DISABILITY EFFECTS AND SITE-LEVEL FAIRNESS AND RESPONSIVENESS

		Dependent variables			
		Likelihood of turnover (ordered probit)	Willing to work hard for company (OLS)	Loyalty to company (ordered probit)	Job satisfaction (OLS)
Row	Independent variables	(1)	(2)	(3)	(4)
All companies					
	Disability interaction with:				
1	High site-level fairness	0.086 (0.50)	0.069 (0.81)	0.071 (0.52)	0.055 (0.39)
2	Medium site-level fairness	0.150 (2.27)*	−0.089 (2.13)**	−0.131 (2.13)*	−0.258 (4.45)**
3	Low site-level fairness	0.287 (6.34)**	−0.170 (4.04)**	−0.274 (6.15)**	−0.401 (6.44)**
4	High site-level fairness	−0.516 (10.15)**	0.270 (6.62)**	0.581 (12.00)**	0.474 (10.82)**
5	Medium site-level fairness	−0.363 (8.58)**	0.142 (5.68)**	0.333 (11.01)**	0.319 (10.16)**
	Low site-level fairness (omitted)				
	Job and demographic variables	Yes	Yes	Yes	Yes
	(Pseudo) R^2	0.042	0.073	0.057	0.055
	No. of sites	175	175	175	175
	n	18,709	18,710	18,423	18,741
Company A					
	Disability interaction with:				
6	High site-level responsiveness	−0.016 (0.07)	0.034 (0.33)	0.043 (0.34)	−0.042 (0.25)
7	Medium site-level responsiveness	0.231 (3.38)**	−0.061 (1.28)	−0.190 (2.70)**	−0.231 (3.06)*
8	Low site-level responsiveness	0.191 (3.78)**	−0.127 (2.73)**	−0.141 (2.64)**	−0.281 (4.14)**
9	High site-level responsiveness	−0.402 (6.20)**	0.155 (4.08)**	0.404 (7.88)**	0.321 (7.73)**

TABLE 6 (cont.)

Row	Independent variables	Dependent variables: Likelihood of turnover (ordered probit)	Willing to work hard for company (OLS)	Loyalty to company (ordered probit)	Job satisfaction (OLS)
		(1)	(2)	(3)	(4)
10	Medium site-level responsiveness	−0.222 (4.34)**	0.133 (4.71)**	0.238 (6.28)**	0.213 (5.29)**
	Low site-level responsiveness (omitted)				
11	Supervisor treats with respect	−0.252 (21.38)**	0.157 (21.11)**	0.304 (29.32)**	0.407 (26.75)**
	Job and demographic variables	Yes	Yes	Yes	Yes
	(Pseudo) R^2	0.066	0.112	0.086	0.150
	No. of sites	131	131	131	131
	n	13,605	13,601	13,344	13,626

NOTES: Significant coefficient at *$p < 0.05$; **$p < 0.01$.
Standard errors are adjusted for within-site correlated errors.
See Appendix A for variable definitions.
Job and demographic controls include age, sex, race (5 dummies), education (4 dummies), years of tenure, occupation (4 dummies), hours worked per week, and union status. The regressions for "all companies" also include company fixed effects.

having less job security, being more closely supervised, and having lower levels of participation in job and department decisions along with lower satisfaction with participation in decisions (Table 2, rows 7–12). They are also less likely than their non-disabled peers to have received formal, company-sponsored training in the last 12 months (row 13), but among those who did receive training, there was no significant gap in hours of training by disability status (row 14).

Further disadvantage is indicated by lower levels of informal training from co-workers (row 15). This is important because much learning on the job is through informal training and mentoring by peers. This relative lack of informal training supports Colella's observation that co-workers often do not fully accept employees with disabilities and fail to integrate them completely into the workplace. The lower levels of training should be expected to lead to expect fewer promotions, which is consistent with the negative relationship between disability and promotions (row 16), although the disability gap in promotions is not statistically significant. One partial explanation for the lower degree of informal training may be that workers with disabilities are less likely to work as part of a team (row 17). These findings provide general support for Hypothesis 1.

Company Treatment of Employees. How do workers with disabilities feel they are treated by their employers? In Table 3, we analyze how much employees agree with the statement "overall, this company is fair to its employees," and the average grade they give their company on five dimensions (see Appendix A). Employees with disabilities give significantly lower average scores on these measures (rows 1 and 3, column 1), consistent with Hypothesis 2. Controlling further for the pay, benefits, and work organization variables from Table 2, the disability gaps are reduced by about one-third, which is consistent with Hypothesis 3, but the gaps remain statistically significant (rows 2 and 4). In other words, the unfair treatment perceived by workers with disabilities is only partially captured by disparities in pay and work organization variables, indicating they also perceive unfair treatment in other areas (which is explored with special questions on the company A and B surveys).

Employee Outcomes. How do employees with disabilities respond to the disparities they face? Table 3 shows, compared with the non-disabled workers, they report a greater average likelihood of turnover, less loyalty and willingness to work hard for the company, and lower average levels of job satisfaction (rows 5–12, column 1). This may be explained by equity theory, which predicts employees become alienated and decrease their work effort when they believe they have been unfairly treated (Blanck et al. 2003). Controlling for the pay and work organization variables, the disability gaps are again reduced

by about one-third but remain significant (rows 6, 8, 10 and 12). These results support Hypotheses 4 and 5.

Comparison of Disability Disparities Across Companies. Do these disparities or disability gaps exist in all companies and worksites, or just some? In this section, we compare company A and company B, two large companies with different outcomes. The disability gaps in pay and work organization at each company are presented in Table 4. The results for company A are similar to results for the overall sample presented in Table 3 (not surprisingly because company A constituted over half of the sample.) In company B, however, there are significant disability gaps for only three measures—supervision, formal training, and number of promotions. The smaller sample size restricts the power of the tests, so it is important to examine effect sizes. The magnitudes and direction of the coefficients suggest employees with disabilities fare relatively better in company B on four measures—total compensation relative to market, grade of the company on benefits, job security, and participation in department decisions.

While comparisons on pay and work organization present a mixed picture, the results are clearer when we examine company treatment of employees in Table 5. In company A, people with disabilities report significantly lower scores on perceived company fairness and grading of company treatment of employees, with coefficients that decline but still are significant after controlling for pay and work organization variables (Table 5, rows 1–4). Company A also shows two disability gaps on measures not available for other companies. Employees with disabilities are significantly less likely than non-disabled employees to report their supervisors treat them with respect (rows 5 and 6). Colella views lack of respect as an important barrier to the integration of employees with disabilities in the workplace. Also, employees with disabilities are less likely to report the company is responsive to employee concerns, both before and after controlling for pay and work organization variables (rows 7 and 8). As in the overall sample, employees with disabilities at company A report a higher likelihood of turnover and lower scores on willingness to work hard, company loyalty, and job satisfaction measures (rows 13–20).

Company B provides a different picture. There are no significant differences between employees with and without disabilities on perceived company fairness or on the grades they give the company on treatment of employees, before and after controlling for pay and work organization variables (rows 1–4). In contrast to company A where employees with disabilities reported worse relations with their supervisors, employees with disabilities in company B were as likely as non-disabled employees to report that their supervisors give constructive feedback (rows 9 and 10). The climate is not, however, ideal for workers with disabilities at company B. In another measure available only

for this company, employees with disabilities were significantly less likely to report they are not subject to inappropriate comments and behavior (row 11). This may help explain why employees with disabilities report significantly lower levels of job satisfaction (row 19). The gaps in inappropriate treatment and in job satisfaction at company B become smaller, however, and lose statistical significance when controlling for pay and work organization variables (rows 12 and 20). In contrast, at company A the disability gap in job satisfaction is larger and remains significant after controlling for pay and work organization variables. Finally, unlike the employees with disabilities at company A, those at company B are not significantly different from their non-disabled co-workers in their reported likelihood of turnover, willingness to work hard for the company, and loyalty to the company.

These findings suggest that while some important disability gaps exist at company B, the company appears to treat workers more equally and the climate is more hospitable to employees with disabilities than at company A. Some of the differences between the companies may be explained by disparities in pay and work organization—in particular, employees with disabilities at company A appear to face greater gaps in total compensation, benefits, job security, and participation in department decisions. However, perceptions of better treatment appear to operate apart from disparities in pay and work organization, as indicated by the persistence of disability gaps in perceived company treatment after controlling for pay and work organization variables at company A, and the lack of such disability gaps either before or after controlling for several disparities in pay and work organization at company B. More supportive and respectful treatment on a daily basis—by the company, supervisors, and co-workers—appears to be a key factor in employees' job satisfaction and views of the company. The better treatment may stem in part from the broader distribution of employees with disabilities throughout company B—they are not concentrated in production jobs, and many are in professional and technical jobs. As noted, greater contact with people with disabilities, particularly in more skilled and higher-status positions, helps non-disabled workers overcome negative stereotypes about the capacities of people with disabilities (Makas 1988). The differences between companies A and B suggest the workplace environment plays an important moderating role in the relationship between disability and employee responses, which is consistent with Hypotheses 6 and 7. More formal tests of these hypotheses are presented next.

Comparison of Disability Disparities Across Worksites. An alternative way to examine the importance of workplace climate and culture is to make comparisons across worksites. There are 175 separate worksites in the entire sample with at least one employee with a disability, of which 131 belong to company

A. As noted, comparisons across worksites are useful because employee experiences are influenced strongly by their local environment. Company policies and practices are implemented and interpreted in different ways by local managers, supervisors, and co-workers.

To obtain site-level measures of company climate, the scores on the company fairness and responsiveness variables were averaged within each worksite, and the average worksite score was interacted with an employee's disability status. While we expect a positive moderating role of company fairness and responsiveness (Hypotheses 6 and 7), there is no firm theoretical basis for specifying the exact form of this relationship (e.g., whether the relationship is linear, and what types of non-linearities may exist). The relationship was tested first by using a disability interaction term alone and with its square, and then by categorical variables to capture non-continuous changes between different categories. Here, we present results comparing three categories, because they provide a meaningful picture of differences among worksites with better and worse perceptions of company treatment.[4] Specifically, for each measure we establish three groups based on whether the site-level company treatment score was above the 90th percentile, between the 50th and 90th percentiles, or below the 50th percentile. Estimates with other groupings produce similar results, but this classification is presented because a focus on the top 10 percent allows a straightforward examination of how employees with disabilities do in the "best" workplaces.

Worksites viewed as more fair and responsive by employees in general appear to be particularly beneficial for employees with disabilities. The results in Table 6 show that among the top 10 percent of worksites in perceived fairness, there are no significant differences between employees with and without disabilities in measures of likelihood of turnover, willingness to work hard, loyalty, and job satisfaction (row 1). In contrast, the biggest gaps between workers with and without disabilities occur in the worksites with the lowest overall levels of perceived fairness (row 3). The findings are maintained when controlling for pay and work organization variables (not shown). The results in the top half of Table 6 are consistent with Hypothesis 6, and with the results of McKay et al. (2007), McKay, Avery, and Morris (2008) on the especially strong impact of diversity climate on outcomes for African-American employees.

Figure 3 illustrates the results for the job satisfaction measure. Individual job satisfaction increases as the site level fairness score goes up, but it

[4] The results using linear and squared terms showed several significant results indicating a positive interaction between disability status and worksite company treatment scores, but there was no consistent pattern across the four dependent variables. The categories provide a more straightforward way to present and assess the interactions.

increases relatively more strongly for employees with disabilities. As a result, there is a disability gap in job satisfaction in the worksites with low and medium average fairness scores but no significant gap in sites with high average fairness scores.

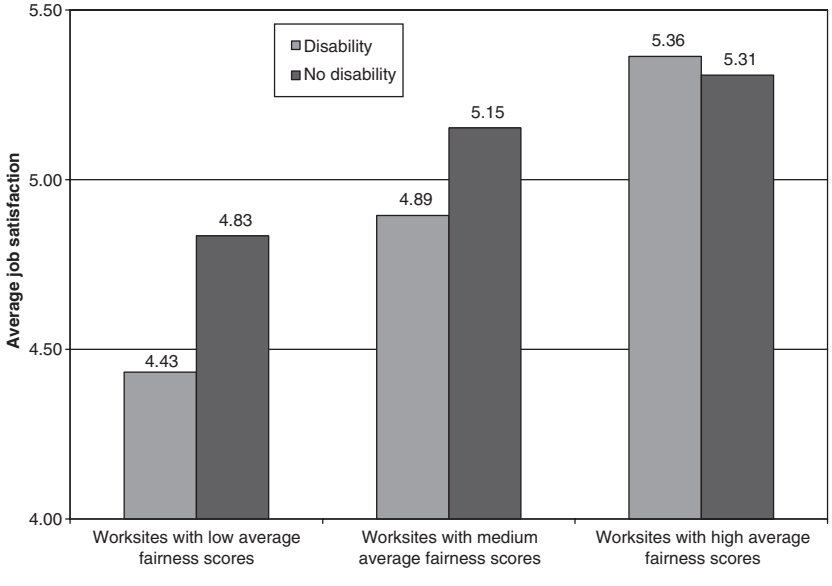
Similar results emerge for company A when disability is interacted with the perceived company responsiveness to employees: there are no disability gaps among the top 10 percent of worksites, while there are significant gaps among the bottom 50 percent of worksites, which is consistent with Hypothesis 7. One result worthy of future study is that company A worksites with medium responsiveness show larger disability gaps than the worksites with low responsiveness on two measures—likelihood of turnover and loyalty. This may reflect greater frustration as a result of higher expectations in worksites that are seen as somewhat responsive.

Conclusion

This study provides the first detailed large-scale exploration of the experiences and attitudes of employees with disabilities. We find people with disabilities face a number of important disparities at work, including lower pay and benefits, less

FIGURE 3

Disability, Job Satisfaction, and Perceptions of Fairness



job security, higher levels of supervision, lower participation in job and department decisions, and lower levels of company-sponsored formal training and informal training from co-workers. These gaps contribute to, but do not fully explain, the more negative evaluations of company treatment by workers with disabilities, and their higher likelihood of turnover and their lower levels of company loyalty and job satisfaction. The estimated disparities are consistent with the hypotheses, except for the lack of a statistically significant disability gap in promotion opportunities (though the result was in the predicted direction).

The disability gaps vary greatly across companies and worksites in ways that suggest the importance of corporate culture. Our comparison of two firms—one with and one without significant disability gaps in perceived company treatment of employees—show differences in perceived company treatment were only partly explained by differences in pay and work organization variables, indicating other factors, such as being treated with respect, play an important role.

Our comparisons across worksites show that in sites where employees in general report high levels of company fairness and responsiveness, there are no significant differences between employees with and without disabilities on measures of job satisfaction, company loyalty, willingness to work hard, and turnover intention. In contrast, in worksites where employees in general perceive lower levels of company fairness and responsiveness, employees with disabilities have especially low levels of job satisfaction, loyalty, and willingness to work hard, and express greater turnover intentions, which supports our hypotheses. This pattern is consistent with Stone and Colella's (1996) theory that workers with disabilities fare better in companies viewed as fair and responsive to the needs of all employees, in part because workplace accommodations are less likely to be viewed as special treatment, while employees with disabilities are likely to fare worse in unresponsive and more rigid organizations.

These findings strongly suggest company climate and culture have a large influence on employees with disabilities. As noted, there is a need for future investigation in this area given the limitations of this first study. The sample, though large, may not be representative of other U.S. businesses. The original surveys were not designed specifically to study disability issues, and the disability identifier provides no information on type or severity of disability. There may be interactions between disability and demographic characteristics—e.g., race and gender—that provide a more complex and nuanced picture. In future research, it will be valuable to know whether a disability's onset occurred before or after the employee joined the company, because employers may treat current employees who acquire a disability differently from job applicants with disabilities, for instance in the provision of workplace accommodations (Gunderson and Hyatt 1996; Schartz, Hendricks, and Blanck 2006).

Finally, the measures of perceived company treatment of employees only scratch the surface of corporate culture, which is a complex phenomenon that has many theoretical and practical dimensions. Corporate culture is best studied with a variety of methods, including qualitative interviews that explore the often unconscious or subtle values and assumptions in organizations. As noted by Rousseau, qualitative and quantitative methods are best used together because "different levels of culture are amenable to different research methods" (Rousseau 1990: 166). In this study, we provide initial quantitative evidence that justice climate and other cultural variables make a clear difference for employees with disabilities. Still, in future and ongoing studies we hope to identify the mechanisms through which such culture is transmitted and may be changed over time.

This study thus is a first step in exploring the relationship between corporate culture and the experiences of employees with disabilities. A valuable next step is detailed company case studies of disability, corporate culture, and best practices that combine quantitative and qualitative data, making comparisons between and within industries (Blanck et al. 2007). This will shed light on a neglected and important area, and help companies develop and assess systematic policies, training, promotion, and hiring programs that benefit people with disabilities and the companies themselves. In particular, this research may lead to greater understanding of why certain companies, consistent with the ADA's core requirements, are more likely to provide workplace accommodations to their qualified employees with disabilities (Blanck et al. 2007). We are only beginning to understand the factors that predict the provision of accommodations (Schartz, Hendricks, and Blanck 2006), but we do know they are crucial to the employment of many workers with disabilities. Ultimately, enhanced understanding of corporate culture and the experiences of employees with disabilities may help to improve employment rates, working conditions, and the full acceptance of people with disabilities in the workplace.

References

Baldwin, Marjorie L., and William Johnson. 2006. "A Critical Review of Studies of Discrimination against Workers with Disabilities." In *Handbook on the Economics of Discrimination*, edited by William M. Rodgers III, pp. 119–60. Northampton, MA: Edgar Elgar Publishing.

———, and Edward J. Schumacher. 2002. "A Note on Job Mobility Among Workers with Disabilities." *Industrial Relations* 41(3):430–41.

Ball, Phoebe, Gregory Monaco, James Schmeling, Helen Schartz, and Peter Blanck. 2005. "Disability as Diversity in Fortune 100 Companies." *Behavioral Sciences and the Law* 23(1):97–121.

———, Michael B. Morris, Johnette Hartnette, and Peter Blanck. 2006. "Breaking the Cycle of Poverty: Asset Accumulation by People with Disabilities." *Disability Studies Quarterly*, 26(1): Available at: http://www.dsq-sds-archives.org/_articles_html/2006/winter/ball.asp

Becker, Brian, and Mark Huselid. 2006. "Strategic Human Resource Management: Where Do We Go From Here?" *Journal of Management* 32:898–925.

Blanck, Peter. 1994. "Communicating the Americans with Disabilities Act: Transcending Compliance—A case report on Sears Roebuck & Co." The Annenberg Washington Program, White Paper, Washington, DC. Available at: http://www.annenberg.northwestern.edu/pubs/sears/.

———. 1996. "Communicating the Americans with Disabilities Act: Transcending Compliance—1996 Follow-up report on Sears, Roebuck & Co." The Annenberg Washington Program Reports, Washington, DC. Available at: http://bbi.syr.edu/publications/blanck_docs/1995-1999/annen_follow_up_96_sears.pdf

———. 2001. "Civil War Pensions and Disability." *Ohio State Law Journal* 62:109–249.

———. 2005. "Americans with Disabilities and their Civil Rights: Past, Present, Future." *University of Pittsburgh Law Review* 66:687–719.

———, Lisa Schur, Douglas Kruse, Susan Schwochau, and Chen Song. 2003. "Calibrating the Impact of the ADA's Employment Provisions." *Stanford Law and Policy Review* 14:267–90.

———, Eve Hill, Charles D. Siegal, and Michael Waterstone. 2005. *Disability Civil Rights Law and Policy.* St Paul, MN: Thomson/West.

———, Meera Adya, William Myhill, Deepti Samant, and Pei-Chun Chen. 2007. "Employment of Persons with Disabilities: Twenty-Five Years Back and Forward." *Minnesota Law and Inequality: A Journal of Theory and Practice* 25:323–53.

Boyle, Mike A. 1997. "Social Barriers to Successful Reentry into Mainstream Organizational Culture: Perceptions of People with Disabilities." *Human Resource Development Quarterly* 8:259–68.

Bruyère, Susanne. 2000. *Disability Employment Policies and Practices in Private and Federal Sector Organizations*. Ithaca, NY: Cornell University, Program on Employment and Disability.

———, William A. Erickson, and Joshua T. Ferrentino. 2003. "Identity and Disability in the Workplace." *William and Mary Law Review* 44(3):1173–96.

Colella, Adrienne. 1996. "Organizational Socialization of Newcomers with Disabilities: A Framework for Future Research." *Research in Personnel and Human Resources Management* 14:351–417.

———. 2001. "Coworker Distributive Fairness Judgments of the Workplace Accommodation of Employees with Disabilities." *Academy of Management Review* 26:100–16.

———, Angelo DeNisi, and Arup Varma. 1998. "The Impact of Ratee's Disability on Performance Judgments and Choice as Partner: The Role of Disability-Job Fit Stereotypes and Interdependence of Rewards." *Journal of Applied Psychology* 83:102–11.

Combs, James, Yongmei Liu, Angela Hall, and David Ketchen. 2006. "How Much Do High-Performance Work Practices Matter? A Meta-analysis of Their Effects on Organizational Performance." *Personnel Psychology* 59(3):501–28.

Di Natale, Marisa. 2001. "Characteristics of and Preference for Alternative Work Arrangements, 1999." *Monthly Labor Review* 124(3):28–49.

Dixon, Karen, Douglas Kruse, and Carl Van Horn 2003. *Restricted Access: A Survey of Employers about People with Disabilities and Lowering Barriers to Work*. New Brunswick, NJ: John J. Heldrich Center for Workforce Development, Rutgers University.

Griffeth, Rodger W., Peter W. Hom, and Stefan Gaertner. 2000. "A Meta-analysis of Antecedents and Correlates of Employee Turnover: Update, Moderator Tests, and Research Implications for the Next Millennium." *Journal of Management* 26(3):463–88.

Gunderson, Morley, and Douglas Hyatt. 1996. "Do Injured Workers Pay for Reasonable Accommodation?" *Industrial and Labor Relations Review* 50:92–103.

Hale, Thomas, Howard Hayghe, and John McNeil 1998. "Persons with Disabilities: Labor Market Activity, 1994." *Monthly Labor Review*, 121(9):1–12.

Harlan, Sharon L., and Pamela W. Robert. 1998. "The Social Construction of Disability in Organizations: Why Employers Resist Reasonable Accommodations." *Work and Occupations* 25:397–435.

Harris Interactive, Inc. 2000. *2000 N.O.D./Harris Survey of Americans with Disabilities*. New York: Louis Harris and Associates.

Hartnette, Johnette, and Peter Blanck. 2003. *Temporary Assistance to Needy Families (TANF) and Disability.* Unpublished manuscript, University of Iowa, Law, Health Policy and Disability Center.

Klein, Katherine J., and Steve W.J. Kozlowski. 2000. *Multilevel Theory, Research, and Methods in Organizations: Foundations, Extensions, and New Directions*. San Francisco, CA: Jossey-Bass.

Kruse, Douglas. 1998. "Persons with Disabilities: Demographic, Income, and Health Care Characteristics." *Monthly Labor Review* 121(9):13–22.

———, and Lisa Schur. 2003. "Employment of People with Disabilities Following the ADA." *Industrial Relations* 42:31–66.

Liao, Hui. 2007. "Do It Right This Time: The Role of Employee Service Recovery Performance in Customer Perceived Justice and Customer Loyalty After Service Failures." *Journal of Applied Psychology* 92:475–89.

———, and Deborah Rupp. 2005. "The Impact of Justice Climate and Justice Orientation on Work Outcomes: A Cross-level Multifoci Framework." *Journal of Applied Psychology* 90(2):242–56.

Macky, Keith, and Peter Boxall. 2007. "The Relationship Between 'High-Performance Work Practices' and Employee Attitudes: An Investigation of Additive and Interaction Effects." *International Journal of Human Resource Management* 18(4):537–67.

Makas, Elaine. 1988. "Positive Attitudes Toward Disabled People: Disabled and Nondisabled Persons' Perspectives." *Journal of Social Issues* 44:49–61.

Marti, Mollie W., and Peter Blanck. 2000. "Attitudes, Behavior, and the ADA." In *Employment, Disability, and the Americans with Disabilities Act: Issues in Law, Public Policy, and Research*, edited by Peter D. Blanck, pp. 356–84. Evanston, IL: Northwestern University Press.

McAfee, James K., and David McNaughton. 1997a. "Transitional Outcomes: Job Satisfaction of Workers with Disabilities—Part One: General Job Satisfaction." *Journal of Vocational Rehabilitation* 8:135–42.

———, and ———. 1997b. "Transitional Outcomes: Job Satisfaction of Workers with Disabilities—Part Two: Satisfaction with Promotions, Pay, Co-workers, Supervision, and Work Conditions." *Journal of Vocational Rehabilitation* 8:243–51.

McKay, Patrick, Derek Avery, and Mark A. Morris. 2008. "Mean Racial–Ethnic Differences in Employee Sales Performance: The Moderating Role of Diversity Climate." *Personnel Psychology* 61:349–74.

———, ———, Scott Tonadandel, Mark A. Morris, Morela Hernandez, and Michelle R. Hebl. 2007. "Racial Differences in Employee Retention: Are Diversity Climate Perceptions the Key?" *Personnel Psychology* 60:35–62.

Meyer, John P., David J. Stanley, Lynne Herscovitch, and Laryssa Topolnytsky. 2002. "Affective, Continuance, and Normative Commitment to the Organization: A Meta-analysis of Antecedents, Correlates, and Consequences." *Journal of Vocational Behavior* 61:20–52.

O'Reilly, Charles A., Jennifer Chatman, and David Caldwell. 1991. "People and Organizational Culture: A Profile Comparison Approach to Assessing Person–Organization Fit." *Academy of Management Journal*, 34(3):487–516.

Presser, H., and Barbara Altman. 2002. "Work Shifts and Disability: A National View." *Monthly Labor Review* September:11–24.

RRTC. 2007. *2006 Disability Status Reports: United States*. Ithaca, NY: Rehabilitation Research and Training Center on Disability Demographics and Statistics, Cornell University.

Rupp, Deborah, Michael Bashshur, and Hui Liao 2007. "Justice Climate Past, Present, and Future: Models of Structure and Emergence." In *Research in Multi-Level Issues*, Vol. 6, edited by Fred Dansereau, and Francis Yammarino, pp. 357–96. Oxford: Elsevier.

Sandler, Len, and Peter Blanck. 2004. "Accessibility as a Corporate Article of Faith at Microsoft: Case Study of Corporate Culture and Human Resource Dimensions." *Behavioral Sciences and the Law* 23:39–64.

Schartz, Helen, D.J. Hendricks, and Peter Blanck. 2006. "Workplace Accommodations: Evidence-Based Outcomes." *Work* 27:345–54.

———, Kevin M. Schartz, D.J. Hendricks, and Peter Blanck. 2006. "Workplace Accommodations: Empirical Study of Current Employees." *Mississippi Law Journal* 75:917–43.

Schur, Lisa. 2002. "Dead-End Jobs or a Path to Economic Well-Being? The Consequences of Non-Standard Work among People with Disabilities." *Behavioral Sciences and the Law* 20:601–20.

———. 2003. "Barriers or Opportunities? The Causes of Contingent and Part-time Work Among People with Disabilities." *Industrial Relations* 42:589–622.

———, Douglas Kruse, and Peter Blanck. 2005. "Corporate Culture and the Employment of Persons with Disabilities." *Behavioral Sciences and the Law* 23:3–20.

Spataro, Sandra E. 2005. "Diversity in Context: How Organizational Culture Shapes Reactions to Workers with Disabilities and Others who are Demographically Different." *Behavioral Sciences and the Law* 23:21–38.

Stapleton, David C., and Richard Burkhauser (eds). 2003. *The Decline in the Employment of People with Disabilities: A Policy Puzzle*. Kalamazoo, MI: W.E. Upjohn Institute for Employment Research.

Stone, Dianna, and Adrienne Colella. 1996. "A Model of Factors Affecting the Treatment of Disabled Individuals in Organizations." *Academy of Management Review* 21:352–401.

Uppal, Sharanjit. 2005. "Disability, Workplace Characteristics, and Job Satisfaction." *International Journal of Management* 26(4):336–49.

Wilgosh, Lorraine R., and D. Skaret. 1987. "Employer Attitudes Toward Hiring Individuals with Disabilities: A Review of the Recent Literature." *Canadian Journal of Rehabilitation* 1:89–98.

Yelin, Ed, and Laura Trupin. 2003. "Disability and the Characteristics of Employment." *Monthly Labor Review* May:20–31.

Appendix A: Variable Definitions and Descriptive Statistics

Pay and Work Organization

Base Pay Plus Overtime. Yearly base pay + overtime (natural log), mean = 10.86, *SD* = 0.57, *n* = 24,687.

Total Compensation Relative to Market. "Do you believe your total compensation is higher or lower than those of employees with similar experience and job descriptions in other companies in your region?" (1–5 scale, 1 = lower, 5 = higher), mean = 2.93, *SD* = 1.01, *n* = 25,722.

Eligible for Performance-Based Pay. "In your job, are you eligible for any type of performance-based pay, such as individual or group bonuses, or any type of profit-sharing?" (0 = no, 1 = yes), mean = 0.850, *SD* = 0.357, *n* = 29,798.

Eligible for Bonuses Based on Group or Department Performance. "In your job, are you eligible for any type of performance-based pay, such as individual or group bonuses, or any type of profit-sharing? What does the size of these performance-based payments depend on? Workgroup or department performance" (0 = no, 1 = yes), mean = 0.213, *SD* = 0.410, *n* = 29,803.

Grade of Company on Wages. "If you were to rate how well this company takes care of workers on a scale similar to school grades, what grade would you give in these areas? Paying good wages" (0–4 scale, 0 = F, 4 = A), mean = 2.67, *SD* = 1.01, *n* = 29,660.

Grade of Company on Benefits. "If you were to rate how well this company takes care of workers on a scale similar to school grades, what grade would you give in these areas? Giving fair benefits to workers" (0–4 scale, 0 = F, 4 = A), mean = 2.76, *SD* = 1.03, *n* = 29,623.

Job Security. "Thinking about the next 12 months, how likely do you think it is that you will lose your job or be laid off?" (1–4 scale, 1 = very likely, 4 = not at all likely), mean = 3.14, *SD* = 0.73, *n* = 29,581.

Closely Supervised. "Are you closely supervised, or do you work fairly independently of close supervision?" (0–10 scale, 0 = independent of close supervision, 10 = closely supervised), mean = 3.03, *SD* = 2.42, *n* = 29,731.

Participation in Job Decisions. "How much involvement and direct influence do YOU have in: Deciding HOW to do your job and organize the work" (1–4 scale, 1 = none, 4 = a lot), mean = 3.30, *SD* = 0.88, *n* = 29,682.

Participation in Department Decisions. "How much involvement and direct influence do YOU have in: Setting GOALS for your work group or department" (1–4 scale, 1 = none, 4 = a lot), mean = 2.59, *SD* = 1.04, *n* = 29,616.

Participation in Company Decisions. "How much involvement and direct influence do YOU have in: Overall company decisions" (1–4 scale, 1 = none, 4 = a lot), mean = 1.70, *SD* = 0.84, *n* = 29,598.

Satisfaction with Participation in Decisions. "Overall, how satisfied are you with the influence you have in company decisions that affect your job and work life?" (1–4 scale, 1 = not at all satisfied, 4 = very satisfied), mean = 2.64, *SD* = 0.85, *n* = 29,580.

Formal Training in Past 12 Months. "In the last 12 months, have you received any formal training from your current employer, such as in classes or seminars sponsored by the employer?" (0 = no, 1 = yes), mean = 0.568, *SD* = 0.495, *n* = 29,515.

Hours of Training in Past 12 Months. If "yes" to formal training question, employee was asked "About how many hours of formal training have you received in the last 12 months?" mean = 31.2, *SD* = 47.8, *n* = 16,128.

Informal Training from Co-Workers. "To what extent have fellow employees taught you job skills, problem solving, short cuts, or other ways to improve your work, on an informal basis?" (1–4 scale, 1 = not at all, 4 = to a great extent), mean = 2.92, *SD* = 0.84, *n* = 29,643.

Work as Part of Team. "In your job, do you normally work as part of a team or group, or do you work mostly on your own?" (0 = no, 1 = yes), mean = 0.560, *SD* = 0.496, *n* = 22,571.

Number of Promotions. "How many promotions have you received since beginning work at this company?" (coded 0, 1, 2, "3 or more"), mean = 1.34, *SD* = 1.21, *n* = 29,593.

Company Treatment of Employees

Company fair to Employees. "Overall, this company is fair to its employees" (1–7 scale, 1 = strongly disagree, 7 = strongly agree), mean = 4.94, *SD* = 1.65, *n* = 27,130.

Grade of Company on Treatment of Employees. This measure is built on an average of the following five items, which has an alpha of 0.930. "If you were to rate how well this company takes care of workers on a scale similar to school grades, what grade would you give in these areas? (a) Sharing information with employees, b) Creating a sense of common purpose in the company, c) Trustworthiness in keeping its promises, d) Accurate information about company performance, e) Overall relations with employees" (0–4 scale, 0 = F, 4 = A), mean = 2.58, *SD* = 0.94, *n* = 27,194.

Supervisor Treats me with Respect (company A only). "Please indicate the degree to which you agree with these statements about your facility: My supervisor treats me with respect" (1–5 scale, 1 = strongly disagree, 5 = strongly agree), mean = 3.88, *SD* = 1.07, *n* = 15,878.

Company is Responsive to Employee Concerns (company A only). This measure is built on an average of the following 17 items, which has an alpha of 0.942. "Please indicate the degree to which you agree with these statements about your facility:

I feel my ideas and opinions count on the job.
I get the information I need to do my job.
My advice on how to deal with problems or work related issues is asked for regularly.
We are kept informed of important issues in the organization.
My suggestions and complaints are taken seriously.
I am kept informed about changes affecting my work.
When changes affecting my area or work are being considered, my ideas are asked for.
Problem solving is pushed to the lowest appropriate level here.
Decision-making is pushed to the lowest appropriate level here.
Overall, this organization is a good place to work.
Decisions that are made and actions taken on a daily basis are consistent with the division's stated goals and direction.
Management follows through on promises and commitments to me.
Management makes a real effort to understand my concerns.
Management follows through on promises and commitments to us.
I trust staff level management in this division.
I trust upper management in this division.
Employees here have confidence in leadership."

(1–5 scale, 1 = strongly disagree, 5 = strongly agree), mean = 3.14, *SD* = 0.82, *n* = 15,971

Not Subject to Inappropriate Comments and Behavior (company B only). "How much do you agree or disagree with the following statements? At work, I feel that I am treated with respect and not subject to inappropriate comments or behavior." (1–5 scale, 1 = strongly disagree, 5 = strongly agree), mean = 4.06, *SD* = 1.08, *n* = 1074.

Supervisor Gives Constructive Feedback (company B only). "How much do you agree or disagree with the following statements? In the last 6 months, my supervisor has given me constructive feedback so that I can do a better job." (1–5 scale, 1 = strongly disagree, 5 = strongly agree), mean = 3.69, *SD* = 1.16, *n* = 1077.

Employee Responses

Likelihood of Turnover. "How likely is it that you will decide to look hard for a job with another organization within the next 12 months? (1–4 scale, 1 = not at all likely, 4 = already looking), mean = 1.54, *SD* = 0.82, *n* = 27,149.

Willing to Work Hard for Company. "To what extent do you agree or disagree with this statement? 'I am willing to work harder than I have to in order to help the company I work for succeed?'" (1–5 scale, 1 = strongly disagree, 5 = strongly agree), mean = 4.05, *SD* = 0.88, *n* = 27,180.

Loyalty. How much loyalty would you say you feel toward the company you work for as a whole? (1–4 scale, no loyalty at all/only a little/some/a lot), mean = 3.35, *SD* = 0.80, *n* = 26,763.

Job Satisfaction. "How satisfied are you in your job?" (1–7 scale, 1 = completely dissatisfied, 7 = completely satisfied), mean = 5.07, *SD* = 1.27, *n* = 27,210.

Appendix B: Regression Specifications

The estimating equations for regressions in Tables 2 and 3 are:

$$Y_1 = a + b_1 * \text{disab} + b_2 * X_1 + b_3 * D_j + e \quad (1)$$

$$Y_2, Y_3 = a + b_1 * \text{disab} + b_2 * X_1 + b_3 * Y_1 + b_4 * D_j + e \quad (2)$$

where Y_1 is the pay and work organization measures; Y_2 is the measures of perceived company treatment; Y_3 is the measures of employee outcomes; disab is the employee reports disability; X_1 is the vector of basic job and demographic variables; D_j is the vector of firm dummy variables; e is the error term; a, b_1, b_2, b_3, b_4, and b_5 are coefficients.

The use of company fixed effects adjusts for any company differences in how workers are treated in general. Standard regressions may also be tainted by selection bias, as both observable and unobservable characteristics may lead people to select, or be selected into, employment. This dataset does not have information on non-employed people. Therefore, we constructed a Heckman selection term based on estimates from employed and non-employed people in the 2005 American Community Survey. The selection term was tested in all regressions but its inclusion never made a noteworthy difference in the coefficients of interest (available on request), so results without the selection term are reported here.

The type of regression model employed depends upon the measure: OLS regressions are used to predict standard continuous variables, probits are used to predict binary variables, ordered probits are used to predict variables where there is a natural ordering but the distances between values may not be equivalent, and tobits are used for continuous variables with censoring at either end.

Table 6 contains results of multi-level models that use site-level averages of perceived company fairness and responsiveness to predict individual-level outcomes. We examine whether site-level averages of these two Y_2 variables interact with disability in predicting the Y_3 variables, based on the third estimating equation:

$$Y_3 = a + b_1 * \text{disab} + b_2 * \overline{Y_2} * \text{disab} + b_3 * \overline{Y_2} + b_4 * X_1 + b_5 * D_j + e \qquad (3)$$

where $\overline{Y_2}$ is the site-level mean of fairness or responsiveness measure; other variables as defined above.

Examination of ANOVA and intraclass correlation results show the use of multilevel modeling is justified (Klein and Kozlowski 2000). The ANOVA scores for the fairness and responsiveness measures are (respectively) 11.74 and 10.30 (significant at the 0.0001 level), the intraclass correlations are 0.092 and 0.082, and the estimated reliabilities of the worksite mean are 0.915 and 0.903. The regressions adjust for correlated errors within worksites so the standard errors will not be understated.