

Making Assistive Technology and Rehabilitation Engineering a Sure Bet **Costs and Benefits of Workplace Accommodations: Findings from Company Case Studies**

Karen L. Milchus, M.S., Center for Assistive Technology and
Environmental Access, Georgia Tech.
Meera Adya, J.D., Ph.D. and Deepti Samant, M.S., Burton Blatt
Institute, Syracuse University

ABSTRACT

Six organizations were surveyed as part of a national study to learn how companies support employment of people with disabilities. Employees with and without disabilities reported on their accommodation requests, accommodations made for people that they supervised or worked with, and the costs / benefits of these changes. The survey found that most accommodations (a mix of technology and policy-based solutions) cost under \$500. Respondents also reported that accommodation benefits, such as improving the likelihood that the employee will stay at the company, equal or outweigh accommodation costs.

KEYWORDS

job accommodation, reasonable accommodation, accommodation cost, workplace policy

BACKGROUND / RESEARCH QUESTIONS

Workplace accommodations are mandated by the Americans with Disabilities Act (ADA) as a way to provide equal opportunities for employees with disabilities (1). Workplace accommodations can enable individuals with disabilities to gain employment and enable employers to retain productive and qualified employees (2). A national survey conducted by the Work RERC found that 75% of the respondents could not perform all of their job duties without workplace accommodations (3). Similarly, a study of Independent Living Centers in California found that almost two-thirds of its respondents benefited from the presence of assistive technology in the workplace (4).

Employers, however, often assume that making accommodations will involve costs that are burdensome for the employer (5). Some studies have tried to quantify these costs (6), but Schartz et. al. point out that most have only looked at direct costs associated with the capital outlay for the accommodations (7). More information is needed about ongoing costs, and about benefits associated with making accommodations.

The Department of Labor's Office of Disability and Employment Policy recently funded a research consortium to investigate these issues, and to identify ways in which an organization can facilitate the employment of people with disabilities. The Burton Blatt Institute (BBI) at

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Syracuse University led the consortium; in collaboration with Rutgers University's School of Management and Labor Relations and Heldrich Center for Workforce Development; Cornell University's Employment and Disability Institute; Georgia Tech's Work RERC; West Virginia University's International Center for Disability Information (JAN); and Humans Future, Inc. The consortium was charged with developing and testing a standard methodology for conducting case study research on companies and organizations.

While the primary focus of the consortium's research was the impact of corporate culture on inclusive employment, additional questions were included on the provision of workplace accommodations. Research questions included: 1) what accommodations are typically requested; 2) why are requests denied; and 3) what are the costs and benefits or accommodations.

METHODOLOGY

The case study methodology that was developed included a survey of employees with and without disabilities, individual interviews, focus groups, and review of company policies and procedures. Employees with and without disabilities were asked about their accommodation requests, accommodations made for people that they supervised or worked with, and the costs and benefits of these accommodations. Consortium members tested this methodology with eight companies, ranging in size from 38 to 38,000 employees, and representing office, manufacturing, hospital, and service settings. Of these, survey data was collected for six companies, and the information in this paper is based on those results. Since the companies were of varying size, making aggregation of data difficult, many of our results looked at the median of each company's responses.

RESULTS

Accommodation Requests

Employees were asked if they had ever requested any change or accommodation in their job or workplace to better meet their personal needs. Of the employees surveyed who had a disability (per standard questions from the Current Population Survey (8)), only about half had made an accommodation request (median 44.2%; range 40.4% to 71.4%). Surprisingly, a sizable number of employees who did not indicate having a disability had requested changes in their job (median 28.2%; range 24.0% to 43.7%).

On the survey, employees were presented with a list of nineteen types of accommodations and were asked to indicate which ones they had requested. They were then asked if the request was for a health condition, disability, or other impairment. The frequency of these disability and health-related requests was determined for each company and was ranked. An overall average ranking was then determined. Table 1 shows the frequency of accommodation requests, with the accommodations listed in this rank order.

The most frequently requested accommodations were a mix of technology-based (e.g., modifications to workstation, new computer / IT) and policy-based (e.g., changes to work

Making Assistive Technology and Rehabilitation Engineering a Sure Bet schedule, work from home, restructuring job) solutions. The least frequent accommodation requests included: use of an interpreter, reader, job coach, service animal, or personal assistant (median 0.7%); modification of exam/training approaches or materials (2.9%); alternative formats or more time (3.2%); written job instructions (4.1%); and changes in workplace policy (4.6%).

Depending on the company, 77% to 95.8% of the employees with a disability or health condition reported that all of their accommodation requests were granted. Up to an additional 10%

Accommodation Request	Frequency (% respondents making request)						Cost of Accomm . (Median of medians)	Reasons for Denial (median of indiv. company denial %)				
	C1	C2	C3	C4	C5	C6		Too much \$	Not necess.	Org. burden	Emp. burden	Not approp
Changes in schedule	57.7	44.8	50.0	40	8.8	16.4	\$1-500	1.2	2.6	1.3	1.3	0.9
Mod. indiv. workstation	37.0	44.8	41.7	39	17.6	4.1	\$101-500	1.3	3.7	1.9	3.6	1.7
New computer / IT	34.6	31.0	33.3	21	8.8	3.9	\$501-1000	1.2	1.1	0.1	0.0	0.0
Work from home	44.4	48.3	37.5	33	8.8	0.4	\$1-100	1.0	4.0	1.0	2.0	1.0
Modify computer / IT	22.2	17.2	20.8	14	2.9	2.4	\$101-500	4.2	0.0	0.1	0.0	0.0
New / different equip.	7.4	3.4	20.8	13	14.7	4.8	\$101-500	2.4	5.1	5.2	0.1	0.0
Move location	11.1	13.8	16.7	4	2.9	6.1	\$1-100	2.8	5.8	3.4	4.7	2.7
Physical changes to site	3.7	6.9	12.5	14	11.8	4.1	\$101-500	10.0	6.6	0.2	0.1	0.0
Position reassignment	18.5	24.1	0.0	11	2.9	5.2	\$0	0.0	2.8	2.8	1.7	0.0
Job restructuring	7.4	13.8	29.2	12	0	5.0	\$1-100	0.2	6.7	7.4	2.4	0.2

Table 1: Top Accommodation Requests: Frequency, Cost, and Reasons for Denial

reported that some, but not all of their requests were provided. Requests were denied for various reasons, but “not necessary” was common (see Table 1). Cost was cited, particularly in response to requests for physical changes to the worksite and for modifications to computers / IT. Organizational burden was cited in response to requests for job restructuring, new equipment, and moving to another location. Overall, the most frequent denials were for moving to another location, physical changes to the worksite, and job restructuring.

Costs / Benefits

Supervisors indicated the initial one-time cost and subsequent annual costs of the accommodations from several price ranges (Table 2). The initial accommodation costs ranged from \$0 to \$5000, but most were under \$500, supporting previous findings from JAN. Less than 10% of the accommodations cost over \$1000. There were also on-going costs associated with

Making Assistive Technology and Rehabilitation Engineering a Sure Bet providing accommodations, sometimes significant. In fact, 2.3% of the accommodations had annual costs of over \$5000. However, the vast majority (77.5%) of the accommodations had no annual cost.

The survey also investigated the benefits resulting from accommodations. Employees were presented with a list of ten potential benefits and were asked to rate whether each was an actual benefit in their case on a scale of 1 (not at all) to 5 completely. The top benefits (averaging 4 = very much) included (highest to lowest): improved employee’s morale / job satisfaction, made it possible to work here, decreased employee’s stress, made it more likely employee will stay here, and improved productivity. Medium benefits (averaging 3 = somewhat) included improvements to workplace safety, ability to acquire training and new skills, and attendance or hours of work. The lowest benefits (averaging 2 = a little bit) were improved interactions with coworkers, and enabled promotion.

Respondents estimated both the costs of accommodations and the monetary value associated with benefits from the accommodations. For each company, the median value for each cost category is plotted in Figure 1. The diagonal line indicates the point where accommodation costs are equal to value. The figure shows that in general, the respondents reported that accommodation benefits equal or outweigh cost.

Comp.	Initial one-time costs (% of accommodations)							Annual on-going costs (% of accommodations)						
	\$0	\$1-100	\$101-500	\$501-1000	\$1001-5000	Over \$5000	Not sure	\$0	\$1-100	\$101-500	\$501-1000	\$1001-5000	Over \$5000	Not sure
1	39.1	8.7	21.7	8.7	4.3	4.3	13.0	68.2	0	4.5	4.5	4.5	4.5	13.6
2	33.3	20.8	20.8	4.2	8.3	0	12.5	83.3	0	8.3	0	0	0	8.3
3	47.8	21.7	4.3	8.7	8.7	0	8.7	80.0	5	0	0	0	5	10
4	41	9	18	10	6	2	16	65	2	3	3	3	5	19
5	10.0	50.0	30.0	10.0	0	0	0	88.9	11.1	0	0	0	0	0
6	61.5	23.1	0	0	0	0	15.4	75.0	12.5	0	0	0	0	12.5
Median across companies	40.1	21.3	19.4	8.7	5.2	0		77.5	3.5	1.5	0	0	2.3	

Table 2: Costs of Accommodations as Reported by Employee, for Each Company

DISCUSSION

Employers are often hesitant about hiring people with disabilities because of fears about what types of supports will be needed by the employees. However, only about half of the employees with disabilities surveyed had made an accommodation request. For at least one company, changes already made to the facility to make it accessible may have precluded the need for

Making Assistive Technology and Rehabilitation Engineering a Sure Bet further accommodations. The survey also showed that people without a disability or health concerns also made requests for changes in their job. These included requests for ergonomic equipment, schedule changes, and permission to telework. Thus, “accommodation” should not be viewed as a disability concern, but as a way to support all employees.

The most frequently used accommodations were a mix of technology- and policy-based solutions. Costs ranged from \$0 to over \$5000, but most accommodations cost under \$500, supporting previous findings from JAN (6). In spite of this, 0.9% to 8.2% (median 2.3%) of supervisors still listed “cost of accommodations” as a barrier to employment or advancement for people with

disabilities. Cost was cited occasionally as a reason for denying accommodation requests, yet the two categories where this showed up the most, physical changes to the worksite and modifications to computers / IT, both had median costs of \$500 or less.

Presumably, the denied

accommodations would have cost much more than was typical.

\$ Value of Benefits	Initial Cost of Accommodations					
	\$0	\$1-100	\$101-500	\$501-1000	\$1001-5000	Over \$5000
\$0	XXX XXX			X		
\$1-100		XX XX			<i>Cost is more than benefit</i>	
\$101-500			XX	X	X	
\$501-1000	<i>Cost is less than benefit</i>		XX	XX		
\$1001-5000		X	XX	X X	XX	
Over \$5000		X				XX XX

Figure 1: Cost vs. Benefits of Accommodations (medians of estimates within each cost range)

Finally, most respondents reported that accommodation benefits outweigh or equal accommodation costs. Some of the financial benefits to providing accommodations can be due to improved productivity, which was listed as a top benefit. However, the highest rated benefits were related to improved job satisfaction, decreased stress, and making it more likely that the employee will stay at the company. These benefits also have monetary value when you consider that there can be significant costs associated with recruiting and training new staff when an employee leaves.

Building on this research, the Work RERC is further investigating how accommodation costs and benefits are calculated and how they change over time for an employee with a disability.

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AUTHOR CONTACT INFORMATION

Karen Milchus, MS, ATP
CATEA, Georgia Institute of Technology
490 Tenth St. NW, Atlanta, GA 30318
Phone: 404-894-0393
Email: karen.milchus@coa.gatech.edu