Exploring the Bottom Line: A Study of the Costs and Benefits of Workers with Disabilities
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In the United States, one of the greatest challenges experienced by individuals with disabilities is employment. Research indicates that employer attitudes contribute to this pervasive problem. Specifically, some employers have misperceptions about the abilities of individuals with disabilities and the costs associated with the provision of accommodations. Understandably, employers are concerned with the bottom line. The purpose of the Economic Impact Study was to examine the economic costs and benefits of workers with disabilities within three sectors (healthcare, retail, and hospitality). This project included two phases of research: (1) focus groups and (2) cost-benefit surveys.

Focus Groups
Twenty-one administrators from 16 companies participated in a focus group to discuss their experiences with workers with disabilities. Findings from the focus group phase revealed the following central themes:

- Disability employment agencies and disability advocates were critical for recruiting and hiring workers with disabilities.
- Managers were viewed as having biases against workers with disabilities and concerns with the cost of accommodations.
- Promotion opportunities were limited for workers with disabilities with many identified as holding and remaining in entry-level positions.
- Costs associated with workers with disabilities were minimal and worth the expense.
- Benefits associated with workers with disabilities included having dedicated and reliable employees and a more diverse workforce.

Cost-Benefit Surveys
Thirteen companies provided quantitative data for the cost-benefit survey phase. From these companies, 314 employees were selected to participate (95 with and 219 without disabilities). The 95 employees with disabilities held various positions including Service Workers, Administrative Support Workers, Professionals, and Officials and Managers. Comparisons between participating employees with and without disabilities in similar positions were made across six work-related variables: tenure, absenteeism, job performance, supervision, worker’s compensation claims, and accommodations.

Overall findings indicated that employees with disabilities have much to contribute to the labor force:

- Participants with disabilities from the retail and hospitality sectors stayed on the job longer than participants without disabilities.
- Across all sectors, participants with disabilities had fewer scheduled absences than those without disabilities.
- Retail participants with disabilities had fewer days of unscheduled absences than those without disabilities.
- Regardless of sector, participants with and without disabilities had nearly identical job performance ratings.
Across all sectors, the difference in the amount of supervision required ratings were relatively minor among participants with and without disabilities. The number of worker’s compensation claims of retail participants with and without disabilities were equivalent.

Areas where participants with disabilities did not fare as well were:
- Healthcare participants with disabilities stayed on the job for shorter lengths of time than participants without disabilities.
- Healthcare participants with disabilities had more days of unscheduled absences than those without disabilities.
- Both healthcare and hospitality participants with disabilities had more worker’s compensation claims than their counterparts.

Lastly, employers from the healthcare and hospitality sectors reported very few accommodations for employees with disabilities, with an average cost of $313. In contrast, both employees with and without disabilities from the retail sector reported that accommodations were provided by their employer to help them perform the essential functions of their job, with “changes to the work schedule” ranking first.
Historically, people with disabilities have not fared well in the United States’ labor force. Of over 21 million working-age adults with disabilities, only four out of ten work full- or part-time. In contrast, the employment rate for non-disabled working-age adults is eight out of ten.\(^1\) Despite federal and state laws that prohibit the discrimination of this group in employment settings, employers are reluctant to hire people with disabilities.\(^2\) One main concern among employers has been that the costs associated with workers with disabilities will outweigh the benefits. However, such concerns may have limited support. For instance, studies from Sears, Roebuck, and Company and E. I. du Pont de Nemours and Company indicate that workers with disabilities did not lead to high accommodation costs and were hard-working and reliable.\(^3, 4\)

In 2002, Mayor Richard Daley commissioned the Mayoral Task Force on the Employment of Individuals with Disabilities (Task Force) to address the employment crisis experienced by Chicagoans with disabilities. One of the initiatives that emerged from this Task Force was the Economic Impact Study (EIS), which examined the costs and benefits associated with workers with disabilities. The EIS was funded by the Illinois Department of Commerce and Economic Opportunity (DCEO). During the course of this three-year study, 25 Chicagoland businesses from three sectors (healthcare, retail, and hospitality) were involved as advisors, focus group participants, and/or sites for the cost-benefit surveys.

The EIS included two phases of data collection:

(1) Focus Group Phase: Twenty-one administrators from 16 companies participated in a focus group where they discussed their experiences with hiring individuals with disabilities.

(2) Cost-Benefit Survey Phase: Thirteen companies provided cost-benefit data on their employees with and without disabilities who volunteered to participate in this study.
Focus Group Participants

The purpose of the focus groups was to explore the experiences of employers with workers with disabilities. A total of 21 administrators from 16 companies participated, representing three sectors:

- healthcare (7 companies),
- hospitality (5 companies), and
- retail (4 companies).

One focus group per sector was held.

Individuals with positions in upper management and hiring were invited to attend, given their direct experiences with the employment process and issues related to hiring people with disabilities. Participants included Vice Presidents of Human Resources, Directors and Managers of Human Resources, Employment Specialists, a President and CEO, and a District Store Manager.

Focus Group Protocol

Prior to each focus group being held, the researchers met with an advisory group comprised of administrators from each sector to obtain and incorporate their feedback on the focus group protocol. The protocol covered the following areas:
1) Importance of Disability Employment Agencies and Disability Advocates

Participants from all three sectors indicated that many employees with disabilities worked with agencies that specialized in job training and job placement for people with disabilities. According to participants, disability employment agencies were critical for identifying qualified applicants with disabilities and for providing support (e.g., job coaches) once these individuals were employed.

Although there were many positive experiences with disability employment agencies, administrators also expressed concern with some agencies for not remaining in contact. They stressed that ongoing communication was key to successful partnerships between employers and disability employment agencies.

Administrators also spoke about the need for disability “champions” within their companies, who would advocate strongly for the hiring of people with disabilities. These champions included employees from the general workforce, as well as powerful and influential administrators. Their advocacy efforts helped create viable employment opportunities for people with disabilities.

2) Persistence of Manager Bias

From the perspectives of participants, manager bias against workers with disabilities existed. These biases included fears that supervisory time would increase, productivity would suffer, and frequent absences would incur if people with disabilities were hired. According to participants, there were also managerial concerns with budgetary strains related to providing disability-related accommodations.

Often, managers’ concerns and biases were linked to their lack of experience with workers with disabilities and lack of knowledge of the Americans with Disabilities Act (ADA). Participants described managers as fearful of asking the “wrong” question during interviews and responding in ways that would make them liable under the law. Participants also felt that one negative experience with an employee with a disability could lead to overgeneralization and increased manager bias.

"It’s nerve-racking in some cases [when interviewing applicants with disabilities] because you’re kind of afraid of saying the wrong thing, doing the wrong thing."
3) Lack of Promotion Opportunities

Participants from all three sectors acknowledged the lack of promotion opportunities for workers with disabilities. This issue was viewed as having both employee- and employer-related contributors, with few workers with disabilities seeking promotions and employers not necessarily fostering promotion opportunities among employees with disabilities.

Further, participants shared that workers known to employers to have a disability were employed in entry level and semi-skilled positions (e.g., clerical, food service, laundry, and bus person); few were in professional positions.

“I'm embarrassed to say, I've never promoted one [person with a disability] to a supervisory or higher level, but I've never had one ask either.”

4) Costs Associated with Workers with Disabilities

Overall, participants reported that the cost of accommodating workers with disabilities was minimal. Types of accommodations included stools for check out lanes, special lighting, computers with large print, and use of a sign language interpreter. One healthcare participant estimated company cost to be under $500.

Despite minimal costs, participants expressed that some managers still feared that costs associated with accommodating workers with disabilities were high.

5) Benefits Associated with Workers with Disabilities

Lastly, participants shared that there were numerous benefits to hiring people with disabilities. Among this group, participants noted low absenteeism rates and long tenures. They also described their employees with disabilities as loyal, reliable, and hardworking.

“[An employee with a disability has] been with us for 35 years. He’s never missed a day and he’s never late. Whenever there’s a snowstorm, he prepares to get to work on time and most of the time the manager’s not there. So, we look at that individual and say, “Wow! We need more guys like that.””

An additional benefit to hiring people with disabilities was the diversification of work settings, which led to an overall positive work environment.
Cost-Benefit Survey Phase: Participants

The purpose of the cost-benefit survey phase was to gather quantitative data on workers with and without disabilities in similar positions in order to make comparisons across a number of work-related variables. For this phase of the study, we initially recruited 22 companies. Of these companies, 9 withdrew their participation for various reasons (e.g., no employees with disabilities agreed to participate; turnover with company representatives; corporate buyouts; and lack of organizational resources to dedicate to data collection). As a result, 13 companies from three sectors participated in all aspects of the cost-benefit survey phase: healthcare (8), retail (3), and hospitality (2).

Of these 13 companies, 10 provided descriptive information about their businesses (6 healthcare, 2 retail, and 2 hospitality). From their information, we learned that participating companies were well established (operating for at least 33 years, with an average of 79 years) and had large workforces (company size ranged from 800 to 8000 employees, with an average of 2,037).

From the 13 companies, over 14,000 employees with and without disabilities were invited to participate in the cost-benefit survey phase. With the exception of one company, employees were contacted twice using a variety of approaches (e.g., mailing recruitment materials to employees’ homes; including recruitment materials with paychecks; having managers and/or supervisors distribute recruitment materials to their departments; and providing recruitment materials onsite). Over 1000 employees responded to our recruitment efforts; 82% of whom agreed to participate in the research. Of these participating employees, 80% provided full consent, which allowed employers to release pertinent work-related data to the researchers. The remaining 20% provided partial consent, whereby all data were released with the exception of health insurance and worker’s compensation information. During the consent process, participating employees also self-identified as having (or not having) a disability using the Americans with Disabilities Act’s definition: Under the Americans with Disabilities Act, a disability is a permanent physical or mental impairment that substantially limits one or more major life activities. Employees were not asked to specify their disability. Information on disability status was provided directly to the researchers and not shared with employers.
The cost-benefit survey phase included a matching process, whereby work-related variables of participants with and without disabilities (in similar positions and from the same companies) were compared directly. After the initial matching process for each company was established, 362 employees with and without disabilities were determined eligible to participate. However, 48 employees were withdrawn because of insufficient data. As a result, 314 employees (95 with and 219 without disabilities) contributed to the cost-benefit survey phase. Each participant with a disability was matched on average with 2.3 participants without disabilities; thus, there were 95 groups of participants with and without disabilities.

Of the 95 employees with disabilities, 38% held positions as Service Workers, 16% as Administrative Support Workers, 15% as Professionals, and 10% as Officials and Managers. Noteworthy, when compared to U.S. Census data for the total civilian labor force, percentages for our participants with disabilities holding positions as Administrative Support Workers, Professionals, and Officials and Managers were generally similar. In contrast, Service Workers were overrepresented in our sample of participants with disabilities, and may reflect the nature of the three sectors involved with this study. See Appendix 1 for the entire list of job categories of participants with disabilities (overall and by sector).

Furthermore, of the total sample of employees with and without disabilities, 53% worked part-time and 40% worked full-time. The breakdown of participating employees and disability status (overall and by sector) was:

<table>
<thead>
<tr>
<th>Sector</th>
<th>Employees without disabilities</th>
<th>Employees with disabilities</th>
<th>All employees</th>
<th>Matched groups of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Healthcare</td>
<td>81</td>
<td>45</td>
<td>126</td>
<td>45</td>
</tr>
<tr>
<td>Retail</td>
<td>128</td>
<td>46</td>
<td>174</td>
<td>46</td>
</tr>
<tr>
<td>Hospitality</td>
<td>10</td>
<td>4</td>
<td>14</td>
<td>4</td>
</tr>
<tr>
<td>TOTAL</td>
<td>219</td>
<td>95</td>
<td>314</td>
<td>95</td>
</tr>
</tbody>
</table>
The cost-benefit survey was based on an existing framework and covered six main areas. The survey also included items related to health insurance claims and tax credits available for employing workers with disabilities. However, many companies were unable to provide this information, thereby impacting the meaningfulness of the data.
Cost-Benefit Survey Phase: Findings

For each cost-benefit variable, findings (in the form of averages) are presented below for employees with disabilities and their matched counterparts. In addition, findings specific to the sectors are presented if sector trends were noticeably different than overall trends. See Appendix 2 for a display of all the averages (overall and by sector).

1) Tenure
Tenure was defined as the number of months employed, and employees with disabilities stayed on the job 4.26 months longer than employees without disabilities. However, there were noted differences by sector. Participants without disabilities from the healthcare sector were on the job 20.31 months longer than those with disabilities. In contrast, participants with disabilities from the retail and hospitality sectors were on the job longer than those without disabilities (23.77 and 50.12 months longer, respectively).

![TENURE Bar Chart]

Note: 94 groups of employees
2) Absenteeism
Absenteeism was categorized as scheduled (known in advance) and unscheduled (not known in advance) absent days during the last 6 months of employment. For scheduled absences, workers with disabilities had 1.24 fewer days than workers without disabilities, with no sector specific trends noted. However, for unscheduled absences, workers with disabilities had 1.13 more days than workers without disabilities, with differences evident by sector. Specifically, healthcare participants with disabilities had 3.31 more days of unscheduled absences than those without disabilities. This trend was not observed within the retail sector; instead, retail participants with disabilities had .53 fewer days of unscheduled absences than those without disabilities. For the hospitality sector, only one group of employees contributed data to the scheduled and unscheduled absences variables, thereby limiting interpretation of these data.

Note: 47 groups of employees

Note: 35 groups of employees
3) Job performance
Job performance included information from participants' most recent annual performance evaluation, and ratings of *exceeds expectations* (rating = 3), *meets expectations* (rating = 2), and *needs improvement* (rating = 1) were used. Employees with and without disabilities obtained nearly identical average ratings of 2.31 and 2.30, respectively; this pattern was also observed within each sector.

![Job Performance Chart]

**Note:** 73 groups of employees

4) Supervision
Supervision was defined as the amount of supervision required compared to other employees in the same position (less = 1, same = 2, or more = 3) during the last 6 months of employment. The difference between the two groups was relatively minor, with workers with and without disabilities obtaining ratings of 2.06 and 1.99, respectively. No markedly different trends were noted by sector.

![Supervision Chart]

**Note:** 34 groups of employees
5) Worker’s Compensation Claims
Information on the number of worker’s compensation claims was examined for the last 6 months of employment. As a reminder, participating employees chose whether to release this information to the researchers.

Participants with disabilities had 0.35 more worker’s compensation claims than those without disabilities. However, when examining trends by sector, the difference remained for hospitality (2.29 more claims for participants with disabilities) and healthcare (0.42 more claims for participants with disabilities), whereas for retail there was no difference between participants with and without disabilities. Although cost of worker’s compensation claims was included in the survey, only 1 group from the healthcare sector contributed data to this particular variable, thus limiting meaningful interpretation.

Note: 59 groups of employees
6) Accommodations

Accommodations covered an array of changes to the work environment (or to the way a worker performs a job) to enable qualified individuals with disabilities to perform the essential functions of the job. For the accommodations variables, participant data for employees without disabilities were not grouped or matched. Instead, data were examined for 95 participants with and 219 participants without disabilities. Based on feedback from our advisory group members, two approaches were used to collect this information. First, for the healthcare and hospitality sectors, employers were provided with a list of accommodations and were asked to indicate whether participating employees were provided with any accommodation (see Table 1). Employers were also asked to provide the approximate cost of each accommodation (see Table 2). As a reminder, employers were not informed of participants' disability status.

Second, because accommodations information was not routinely collected by our retail sites, participating employees were asked whether they were provided with accommodations. Specifically, employees were asked: Has your employer made changes or provided modifications to help you perform your job? Then, participants were asked to specify the change or modification (see Table 3). We did not gather information on the cost of these accommodations.

In sum, employers reported very few accommodations (total = 16) and all were provided to employees with disabilities. The top accommodation was physical alterations to the work environment, followed by adaptive equipment/assistive technology, modifications to job duties, and changes to work schedule. Furthermore, most accommodations reported by employers were low to no cost. The most costly accommodation was adaptive equipment/assistive technology, which averaged $1,512.

In contrast, when employees from the retail sector were asked about accommodations, many more were reported (total = 64). Interestingly, both employees with and without disabilities reported that accommodations were provided by their employer to help them perform the essential functions of their job. The top accommodation was changes to the work schedule, followed by adaptive equipment/assistive technology, and modifications to job duties.
Table 1: Employer Reported Accommodations (Healthcare and Hospitality)

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Employees with Disabilities</th>
<th>Employees without Disabilities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Alterations</td>
<td>5</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>Adaptive Equipment/Assistive Technology</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Modifications to Job Duties</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Changes to Work Schedule</td>
<td>2</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Job Reassignment</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Personal Assistant</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sign Language Interpreter</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>16</strong></td>
<td><strong>0</strong></td>
<td><strong>16</strong></td>
</tr>
</tbody>
</table>

Table 2: Employer Reported Cost of Accommodations (Healthcare and Hospitality)

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Number</th>
<th>Average Cost</th>
<th>Range of Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical Alterations</td>
<td>3</td>
<td>$52</td>
<td>$13 to $129</td>
</tr>
<tr>
<td>Adaptive Equipment/Assistive Technology</td>
<td>3</td>
<td>$1,512</td>
<td>$1,037 to $2,000</td>
</tr>
<tr>
<td>Changes to Work Schedule</td>
<td>1</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Personal Assistant</td>
<td>1</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>$0</td>
<td>$0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>9</strong></td>
<td><strong>$313</strong></td>
<td><strong>$13 to $2,000</strong></td>
</tr>
</tbody>
</table>

Table 3: Employee Reported Accommodations (Retail)

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Employees with Disabilities</th>
<th>Employees without Disabilities</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Changes to Work Schedule</td>
<td>21</td>
<td>30</td>
<td>51</td>
</tr>
<tr>
<td>Adaptive Equipment/Assistive Technology</td>
<td>2</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Modifications to Job Duties</td>
<td>4</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Materials in Alternate Format</td>
<td>1</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Physical Alterations</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Job Reassignment</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>31</strong></td>
<td><strong>33</strong></td>
<td><strong>64</strong></td>
</tr>
</tbody>
</table>
Conclusion

To the authors’ knowledge, this is one of the first studies to examine the economic costs and benefits of workers with disabilities in the general workforce of three business sectors (healthcare, retail, and hospitality). Prior examinations of this topic have been based primarily on single companies, which have found that workers with disabilities were hard-working, reliable, and not costly in terms of accommodations. Findings from the cost-benefit survey phase of this project support what has been found with the disabled workforce at Sears, Roebuck, and Company and E. I. DuPont de Nemours and Company and indicate that workers with disabilities have much to contribute to the labor force (particularly when one considers job performance and supervision). Participants with disabilities from the retail sector also stayed on the job longer, had lower absenteeism rates, and had an equivalent number of worker’s compensation claims when compared to participants without disabilities. Tenure, unscheduled absenteeism, and number of worker’s compensation averages were not as favorable for healthcare participants with disabilities. Further, when reported by employers, the provision of accommodations for participants with disabilities was uncommon and, for the most part, low to no cost.

Additionally, findings from the focus group phase of this project suggest that although administrators expressed positive attitudes toward workers with disabilities, they were concerned that manager biases may be inhibiting work opportunities for this group. Overall, there appears to be a disconnect between the performance of workers with disabilities (as evident through the cost-benefit survey findings) and managers’ perceptions of this group. This disconnect may be particularly apparent among managers and employers who have limited experience with workers with disabilities and limited knowledge of the Americans with Disabilities Act.

Lastly, given the sensitive and complicated nature of this research, it is important to note that there were difficulties with recruiting companies and employees to participate. Difficulties were also apparent when gathering employee data as each company varied in the types of employee records kept. With these challenges in mind, generalizations beyond the scope of this project should be made with caution. This is particularly true for findings related to the hospitality sector (which had only 4 groups of employees).
Endnotes


Dissemination Efforts

Parts of this research have been published in the following outlets:


In addition, this research has been presented at the following conferences:


Dissemination Efforts (continued)


Acknowledgements

This project was conducted in collaboration with the:

**Illinois Department of Commerce and Economic Opportunity (DCEO)**
*Jack Lavin, Director*
DCEO is charged with enhancing Illinois' economic competitiveness by providing technical and financial assistance to businesses, local governments, workers, and families. As the state's lead economic development agency, DCEO works to capitalize on Illinois' strengths as a center of transportation, manufacturing and technology development. DCEO (Grant #02-79114) provided funding for this project.

**Chicagoland Chamber of Commerce (CCC)**
*Gerald Roper, President and CEO*
The CCC is a voluntary association of business and professional men and women who, through committees and professional staff, have contributed importantly to the Chicago metropolitan area's commercial, industrial, and civic development over a long period of years. The CCC's 2,600 members employ more than one million men and women in the region.

**disabilityworks**
*Karen McCulloh, Executive Director*
The disabilityworks initiative resulted from the Mayoral Task Force on the Employment of Individuals with Disabilities (Task Force). DCEO entered into a partnership with the City of Chicago and CCC to implement disabilityworks and bring valuable resources to businesses, people with disabilities, and service providers throughout Illinois. Through the support of DCEO, disabilityworks has established a model that has achieved national and international recognition for its innovative approach to improving employment and training opportunities for people with disabilities.

**City of Chicago - Mayor's Office of Workforce Development (MOWD)**
*David Hanson, Commissioner*
MOWD helps Chicago businesses find qualified workers and assists Chicago residents to train for, get, maintain, and advance in their jobs. MOWD works through Mayor Richard Daley's WorkNet Chicago, its network of over 100 community-based and citywide organizations, to provide businesses with a job-ready workforce, assist adults facing barriers to employment, and make job transitions easier for people who have lost their jobs.

**City of Chicago - Mayor's Office for People with Disabilities (MOPD)**
*Karen Tamley, Commissioner*
MOPD seeks to meet the diverse needs of the more than 600,000 people with disabilities who live and work in Chicago. MOPD promotes total access, full participation, and equal opportunity for people with disabilities of all ages in all aspects of life. It seeks to accomplish this mission through a multi-faceted approach that includes systemic change, education and training, advocacy, and direct services.

We wish to acknowledge the contributions of additional colleagues from DCEO, CCC, disabilityworks, MOWD, and MOPD. Further, we are appreciative of the commitment and support of our participating businesses and employees. Without them, this project would not have been possible.
Lastly, we extend our appreciation to Robert Cimera and the dedicated research team at DePaul University:

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- Jessica Velcoff, M.A., Graduate Research Assistant
- Oscar Donoso, M.A., Graduate Research Assistant, Coordinator
- Jay Rosen, M.A., Graduate Research Assistant
- Marielle Divilbiss, Undergraduate Research Assistant
- Anna Kushnir, Undergraduate Research Assistant
- Dan Schober, Research Assistant

The opinions expressed here are of the authors and do not necessarily reflect the opinions of our collaborators or funding organization.

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## APPENDIX 1

### JOB CATEGORIES OF PARTICIPANTS WITH DISABILITIES

<table>
<thead>
<tr>
<th>Job Categories</th>
<th>Overall Number (%)</th>
<th>Healthcare Number (%)</th>
<th>Retail Number (%)</th>
<th>Hospitality Number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Officials and Managers (e.g., manager, director)</td>
<td>9 (9.5%)</td>
<td>5 (11.1%)</td>
<td>4 (8.7%)</td>
<td>_</td>
</tr>
<tr>
<td>2. Professionals (e.g., pharmacist, nurse)</td>
<td>14 (14.7%)</td>
<td>13 (28.9%)</td>
<td>_</td>
<td>1 (25.0%)</td>
</tr>
<tr>
<td>3. Technicians (e.g., radiology technologist, research assistant)</td>
<td>5 (5.3%)</td>
<td>5 (11.1%)</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>4. Sales Workers (e.g., sales clerk, cashier)</td>
<td>8 (8.4%)</td>
<td>_</td>
<td>8 (17.4%)</td>
<td>_</td>
</tr>
<tr>
<td>5. Administrative Support Workers (e.g., administrative assistant)</td>
<td>15 (15.8%)</td>
<td>15 (33.3%)</td>
<td>_</td>
<td>_</td>
</tr>
<tr>
<td>6. Laborers and Helpers (e.g., production)</td>
<td>5 (5.3%)</td>
<td>_</td>
<td>5 (10.9%)</td>
<td>_</td>
</tr>
<tr>
<td>7. Service Workers (e.g., waiter, housekeeper)</td>
<td>36 (37.9%)</td>
<td>5 (11.1%)</td>
<td>28 (60.9%)</td>
<td>3 (75.0%)</td>
</tr>
<tr>
<td>8. Other</td>
<td>3 (3.2%)</td>
<td>2 (4.4%)</td>
<td>1 (2.2%)</td>
<td>_</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>95 (100%)</strong></td>
<td><strong>45 (100%)</strong></td>
<td><strong>46 (100%)</strong></td>
<td><strong>4 (100%)</strong></td>
</tr>
</tbody>
</table>

Note: Job categories are based on those identified by the Census 2000 Special Equal Employment Opportunity (EEO) - 1 file; and “-” indicates not applicable.
### APPENDIX 2

#### COST-BENEFIT VARIABLES: OVERALL AVERAGES AND SECTOR AVERAGES

<table>
<thead>
<tr>
<th>COST-BENEFIT VARIABLE</th>
<th>OVERALL</th>
<th>HEALTHCARE</th>
<th>RETAIL</th>
<th>HOSPITALITY</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tenure (in months)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO DIS</td>
<td>83.57 (n=94)</td>
<td>87.83 (n=94)</td>
<td>135.11 (n=44)</td>
<td>114.80 (n=44)</td>
</tr>
<tr>
<td>DIS</td>
<td>87.83 (n=94)</td>
<td>114.80 (n=44)</td>
<td>59.33 (n=46)</td>
<td>59.33 (n=46)</td>
</tr>
<tr>
<td><strong>Scheduled Absences: Past 6 months (in days)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO DIS</td>
<td>6.64 (n=47)</td>
<td>5.40 (n=47)</td>
<td>8.95 (n=14)</td>
<td>7.50 (n=14)</td>
</tr>
<tr>
<td>DIS</td>
<td>5.40 (n=47)</td>
<td>7.50 (n=14)</td>
<td>5.83 (n=32)</td>
<td>4.66 (n=32)</td>
</tr>
<tr>
<td><strong>Unscheduled Absences: Past 6 months (in days)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO DIS</td>
<td>2.17 (n=35)</td>
<td>3.30 (n=35)</td>
<td>0.80 (n=15)</td>
<td>4.11 (n=15)</td>
</tr>
<tr>
<td>DIS</td>
<td>3.30 (n=35)</td>
<td>4.11 (n=15)</td>
<td>3.37 (n=19)</td>
<td>2.84 (n=19)</td>
</tr>
<tr>
<td><strong>Job Performance (higher is better)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO DIS</td>
<td>2.31 (n=73)</td>
<td>2.30 (n=73)</td>
<td>2.44 (n=36)</td>
<td>2.42 (n=36)</td>
</tr>
<tr>
<td>DIS</td>
<td>2.30 (n=73)</td>
<td>2.42 (n=36)</td>
<td>2.20 (n=33)</td>
<td>2.21 (n=33)</td>
</tr>
<tr>
<td><strong>Supervision (lower is better)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO DIS</td>
<td>1.99 (n=34)</td>
<td>2.06 (n=34)</td>
<td>1.99 (n=30)</td>
<td>2.07 (n=30)</td>
</tr>
<tr>
<td>DIS</td>
<td>2.06 (n=34)</td>
<td>2.07 (n=30)</td>
<td>2.00 (n=4)</td>
<td>2.00 (n=4)</td>
</tr>
<tr>
<td><strong>Number of Worker's Compensation Claims: Past 6 months</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NO DIS</td>
<td>0.04 (n=59)</td>
<td>0.39 (n=59)</td>
<td>0.06 (n=27)</td>
<td>0.48 (n=27)</td>
</tr>
<tr>
<td>DIS</td>
<td>0.39 (n=59)</td>
<td>0.48 (n=27)</td>
<td>0.00 (n=28)</td>
<td>0.00 (n=28)</td>
</tr>
</tbody>
</table>

Notes: DIS indicates employees with a disability; NO DIS indicates matched group of employees without a disability; “n” indicates the number of matched groups of employees; and “-” indicates not applicable.